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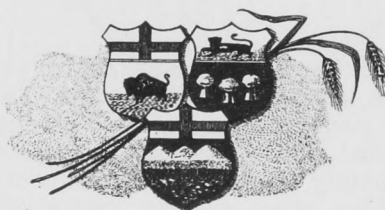
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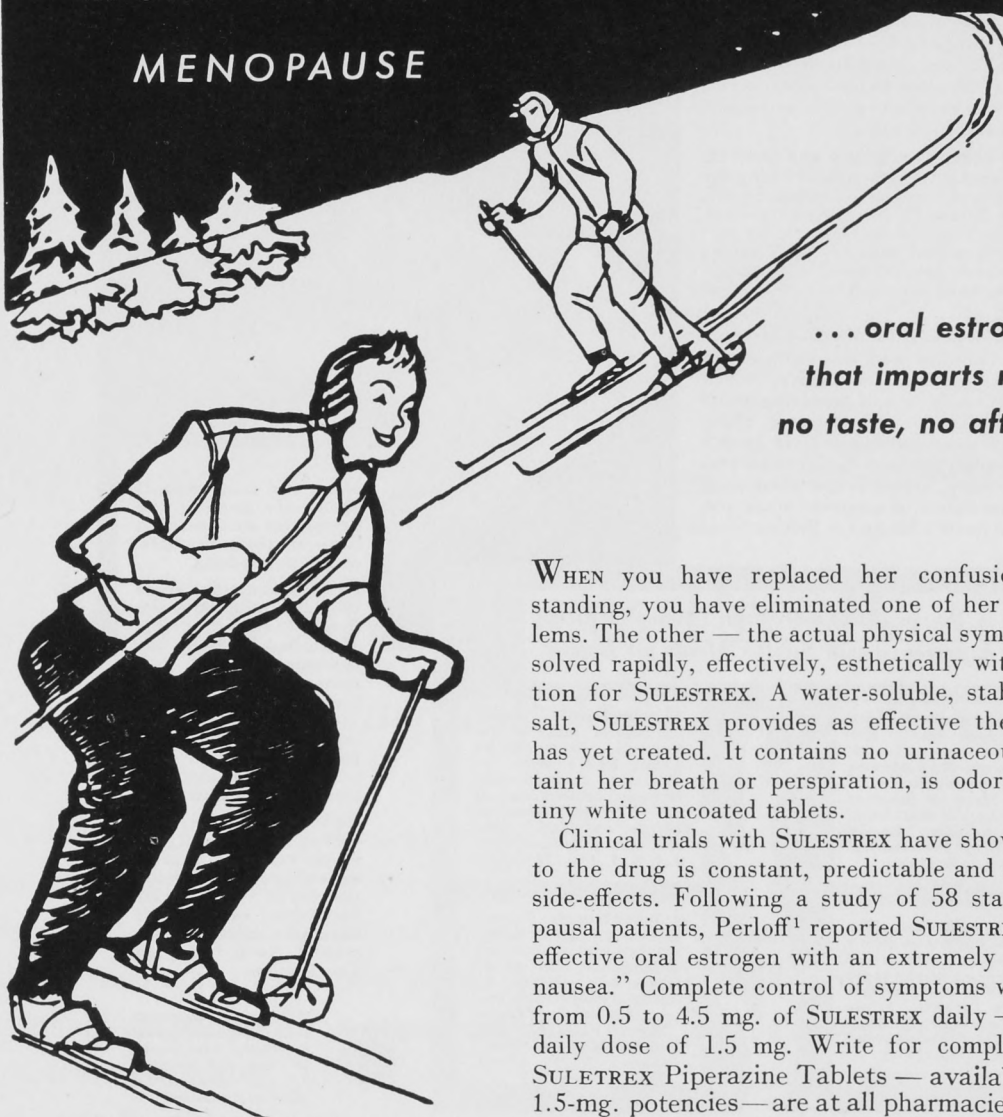
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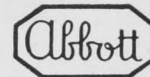


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1. Perloff, Wm. H. (1951), Treatment of the Menopause. II. American J. Obst. & Gynec., 61:670, March.

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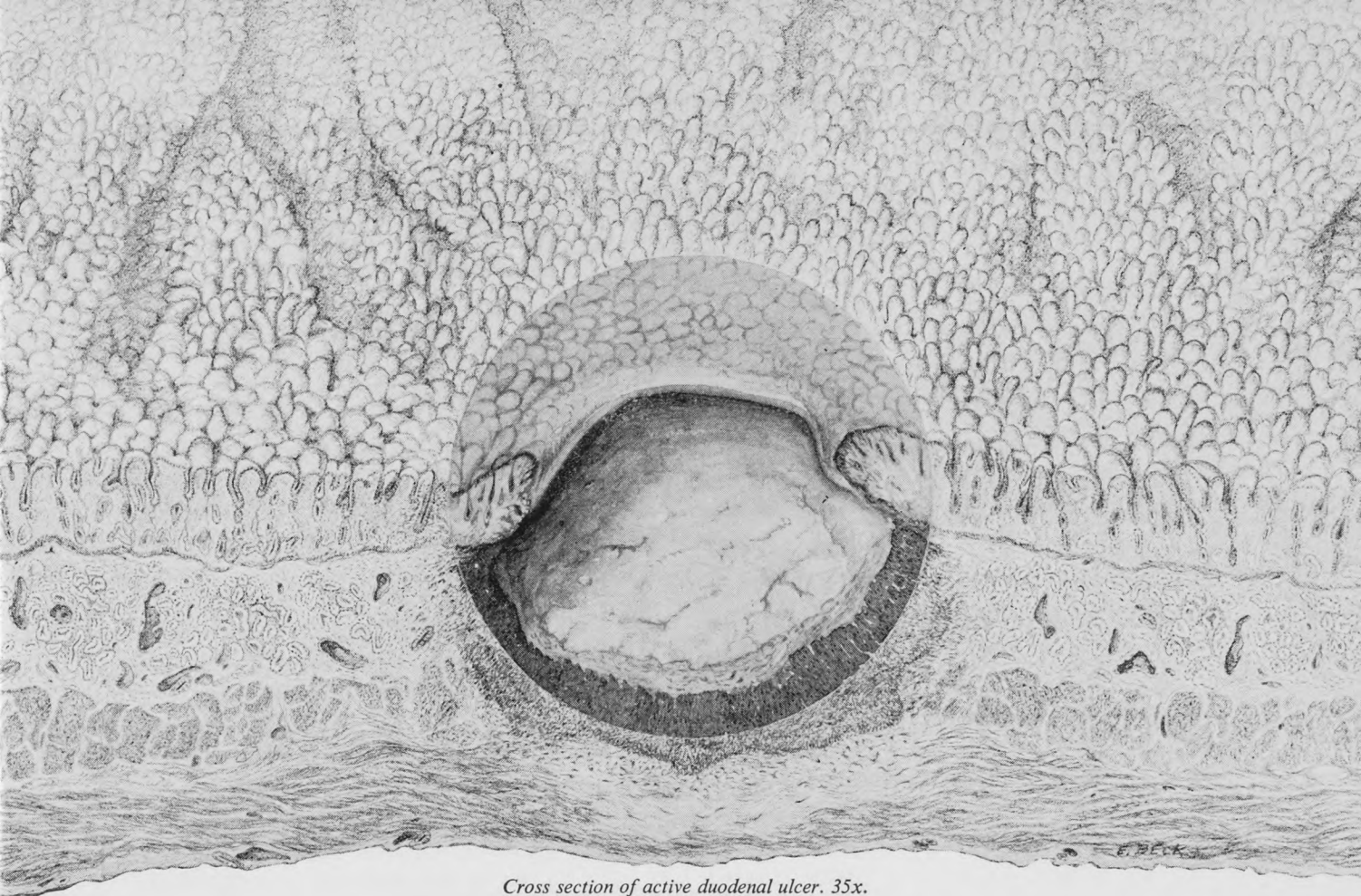
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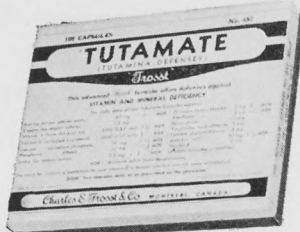
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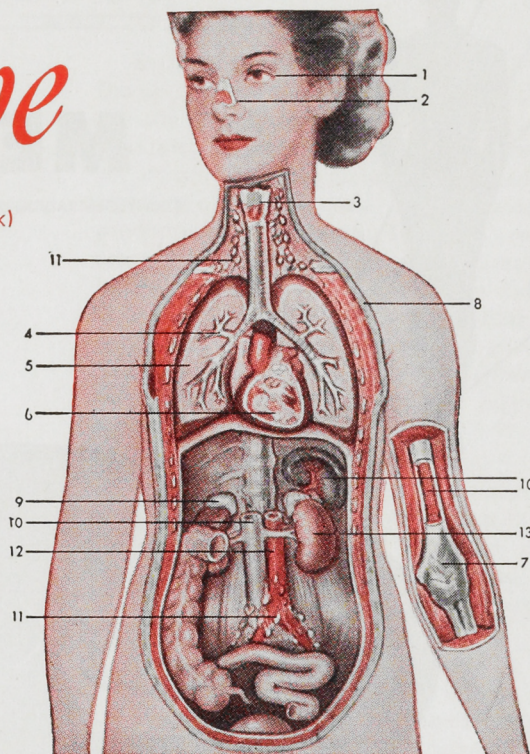
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Dermatology

Systemic Lupus Erythematosus*

With a Brief Discussion of Its Reversibility
in Pregnancy

The late Harold Orr, F.R.C.P. (C.), F.A.C.P.

Edmonton, Alberta

Lupus erythematosus may be classified into two groups:

1. Chronic discoid lupus erythematosus—
 - A. Localized
 - B. Disseminated
2. Systemic lupus erythematosus—
 - A. Acute
 - B. Subacute

Systemic lupus erythematosus, as its name implies, is a systemic disease predominantly affecting young women, rarely occurring before puberty and only occasionally after the menopause. The cause is not known; there is no satisfactory treatment for it, and it is almost invariably fatal—especially the acute form.

Whether chronic discoid and systemic lupus erythematosus are different manifestations of the same disease is debatable. While one has seen patients with chronic discoid lupus erythematosus develop the systemic type, it is a rare occurrence. However, it occurs too frequently to be explained by the element of chance and one feels that there is some relationship between the two. In the chronic type the skin is the only organ affected, but in the systemic type every organ of the body may be involved.

The difference between subacute and acute systemic lupus erythematosus is one of degree and is based on laboratory findings such as leucopenia, anaemia, increased sedimentation rate, reversal of the albumin-globulin ratio, the L.E. cell, and albuminuria. Fever, arthralgia, and increasing weakness must also be considered. The assessment of the kidney function is most important in this classification. With most of the other signs present, but a normal kidney function, one would be inclined to place the patient in the subacute category. The decision, however, is to some extent arbitrary.

Duff,¹ reviewing the work of Klemperer, Pollack and Baehr² discussed their concept of a group of diseases involving fibrous connective tissue. The group includes lupus erythematosus, diffuse scleroderma, dermatomyositis, Buerger's disease, rheumatoid arthritis, periarteritis nodosa, acute rheumatic fever, sulfonamide and other drug sensitivities, and serum sickness.

Duff succinctly says, "The same pathological theme runs through all of them, but the variations on the theme are distinctive for each." For example, in lupus erythematosus fibrinoid necrosis dominates the picture. In acute rheumatic fever proliferative and inflammatory responses predominate, although fibrinoid necrosis does occur in the centre of the granulomatous reaction in the myocardium, producing the Aschoff nodule. Diffuse scleroderma is at the other end of the scale with a proliferative reaction producing quantities of dense collagenous connective tissue but an almost complete absence of necrosis and inflammatory reactions.

Collagen, as shown by Wolbach,³ has its origin in an extra-cellular ground substance secreted by fibroblasts. It has the widest distribution of connective tissue fibre and is made up of broad wavy bands of many fibrils bound together by cement substance and has great tensile strength. When hydrated it becomes gelatine.

The idea that this syndrome is an allergic manifestation of tuberculous infection is a view no longer held. Kiel's⁴ exhaustive study led him to the conclusion that the occurrence of tuberculosis in cases of lupus erythematosus is coincidental and unrelated. In England the theory is widely held that the streptococcus is responsible for most cases. On this continent there is a fairly general belief that the disease is the result of a response in a predisposed person to one of a variety of harmful agents. This is in agreement with Bloch's dictum that the type and course of the allergic reactions are independent of the nature of the antigen but vary according to the localization of the antibody. In systemic lupus erythematosus, according to this concept, the antibody is concentrated in fibrous connective tissue and various antigens have been suspected, including the haemolytic streptococcus, pneumococcus, gonococcus, tubercle bacillus, staphylococcus and foreign serum. Generich⁵ believes that the sensitizing substance originates in the lymph nodes as the result of an unknown disease. Photosensitivity has long been regarded as a factor, due, it is suggested, to some product of metabolism such as haematoporphyrin, tyrosine and other chemical substances known to produce photosensitiveness. Curtis⁶ recently studied a patient with systemic lupus erythematosus by determination of the leucopenic index after exposure to ultraviolet irradiation. The leucocytes fell from 6,500 to 3,000 and then, with the development of the erythema, went to 9,500 and fell to the

*Presented at the Annual Meeting of the Manitoba Medical Association, Winnipeg, October 7th, 1952.

normal level in a twenty-four hour period. This, he suggests, is an allergic reaction to light. It should be remembered, however, that, as pointed out by Selye,⁷ tissue damage from a variety of causes such as, exposure to cold, burns, solar rays, x-rays, operative procedures, bacterial toxins, severe muscular exercise, or treatment with various drugs and tissue extracts may cause a similar chain of events. This is the alarm reaction of the general adaptation syndrome and is distinct from the development of allergic phenomena elicited by micro-organisms or foreign proteins.

Klinge and Vaubel⁸ demonstrated similarities between the pathological findings in lesions of the collagen group and lesions induced experimentally in animals by the administration of foreign proteins and their observation gave origin to the idea that these diseases are due to tissue hypersensitivity.

There are many observations which lend support to this view and the pathological findings in systemic lupus erythematosus are described in several papers as being entirely compatible with those of allergic inflammation.

Because of the occurrence of the acute type in women during the child-bearing period of life, it has been suggested by Rose and Pillsbury,⁹ and others, that an endocrine imbalance may be a factor. However, O'Leary states that therapeutic castration of women who have systemic lupus erythematosus is valueless. Baehr states that treatment of systemic lupus erythematosus with testosterone propionate or castration in women has not materially altered the course of the disease, and that he had not seen any evidence of endocrine disorder in men having systemic lupus erythematosus. He thinks that the predominance of the disease in women represents a sex predisposition similar to the predisposition for men seen in thrombo-angitis obliterans.

Hyaluronic acid is the major constituent of connective tissue which is not a stable, unchanging tissue but is a permeable network, the degree of permeability being affected by a variety of substances. One of these, the enzyme hyaluronidase, is found in testicular extract and increases the permeability. Corpus luteum does the same, but oestrogenic substances have the opposite effect.

The hypothesis has been advanced that Vitamin E may inhibit hyaluronidase which is believed to be a factor in collagen diseases. P. Grifa (Minerva Medica, Turin, 43: 267, February, 1952), showed that a tocopherol definitely lessened the spreading reaction of injected hyaluronidase and believes that Vitamin E and its derivatives serve as regulators of hyaluronidase activity in man. It should be tried in systemic lupus erythematosus.

In spite of the evidence that is piling up in support of the allergy hypothesis, some observers feel that in some not yet fully understood im-

balance among these hormones and enzymes may lie the secret of the etiology of systemic lupus erythematosus. It may be, of course, that the allergic state itself is linked to some hormonal imbalance. Nothing, however, has been proved and we must continue for the time being to regard the cause of systemic lupus erythematosus as unknown.

Although connective tissue anywhere in the body may be affected, the cardiovascular system is involved so constantly that the disease has for long been regarded as a diffuse, vascular disease. In the heart the most striking lesion is found in the endocardium and was first described by Libman and Sacks.¹⁰ It was found in 30% of the material of Klemperer et al² and is described by them as a dry, granular pink vegetation varying in size up to 4 mm. in diameter and is situated on the valvular and mural endocardium. The vegetations which consist of altered tissues are not merely laid down on the endocardium. The process begins in the connective tissue beneath the intact endocardium and the growing mass of ground substance becomes grossly evident as the so-called verruca protrudes on the surface. Actually, it may erode through the endocardium. Capillaries invade the verruca from below but are not numerous. At this time fibrosis is initiated and the lesion contains a few capillaries, fibroblasts, lymphocytes and some plasma cells. Newly formed collagen may in its turn suffer the same fate as the original connective tissue. The lesion now is a form of chronic granuloma and is receptive to the implantation of bacteria. This occurred in four of the twelve cases in the series of Klemperer et al,² in which endocardial involvement was found. Changes in the connective tissue of a similar nature, though often with very little inflammatory reaction, may occur in muscular arteries and connective tissue everywhere—especially in the kidneys, pericardium, pleura, peritoneum, skin and joints.

Hargraves, Richmond and Morton¹¹ in 1947 described a hitherto unobserved phenomenon in bone marrow preparations from patients with systemic lupus erythematosus. The phenomenon which is demonstrable in nearly every patient consists of large round homogenous purplish masses (probably nuclear material) in the cytoplasm of polymorphonuclear leucocytes and extracellular masses of similar material surrounded by normal polymorphonuclear leucocytes. The cells which are called L.E. cells are also found in the peripheral blood. Watson et al¹² (1951), were always able to demonstrate L.E. cells in scrapings from the floor of blisters made by the application of cantharides cerate to the skin of patients with systemic lupus erythematosus, and in several cases this method gave positive results where bone marrow examinations had been negative. This phenomenon seems to be due to material

in the plasma of patients with systemic lupus erythematosus. Hargraves et al¹³ put into plasma obtained from patients with systemic lupus erythematosus, bone marrow obtained from patients with other diseases. The preparation was incubated at body temperature for a short time and then showed typical L.E. cells.

For practical purposes the presence of this cell is pathognomonic, as it is not found in scleroderma, periarteritis nodosa and the other members of the collagen group. It has been found in multiple myeloma and in Hodgkin's disease. Peter Smith's¹⁴ review of the work that has been done on the demonstration of the L.E. cell with a discussion of its significance is an excellent one.

Nearly half the patients have prodromal symptoms of arthralgia often affecting the large joints. There is no roentgen evidence of bone change and the overlying skin is not reddened, but sometimes there is effusion into the joints. During the succeeding weeks and months there gradually develops a feeling of weakness and of being unwell. This may be accompanied by the skin eruption which often, but not always, occurs first on the face and usually is erythematous in character. The eruption may extend to other parts of the body or may have begun on other parts of the body and may be scanty or profuse, or, indeed, there may be no cutaneous signs at all. Sometimes it simulates erythema multiforme or erysipelas or an exudative dermatitis and may be haemorrhagic. Erythema of the finger tips is characteristic. Fever develops and is persistent, sometimes low grade and often of the septic type. Albuminuria is nearly always present, the kidney damage ranging from mild renal irritation to severe glomerular nephritis with the so-called "wire loop" lesions in the kidneys. The blood platelets are reduced, usually being below 100,000. The sedimentation rate is markedly increased. Secondary anaemia is frequent. Leucopenia is a striking feature present in more than 80% of patients and occasionally dropping below 1,000 cells per cubic mm. The granulocytes suffer most, while the lymphocytes are more resistant so that a relative lymphocytosis may result. In a small percentage of patients, however, there is a moderate leucocytosis with no leucopenia at any time throughout the course of the disease. As in any other systemic disease, not all organs nor the same organs are affected in every case. The albumin-globulin ratio tends to reversal in nearly every patient and this is reflected in a high percentage of positive serologic tests—44% in Montgomery and McCreight's series.¹⁵ Systemic lupus erythematosus must therefore be listed with the diseases causing false positive serologic reactions.

The disease, as pointed out by Templeton,¹⁶ is one in which there is tissue oedema and sometimes acute abdominal pain indistinguishable from

"surgical abdomen" occurs: knowledge of this possibility may obviate an unnecessary surgical operation. For the same reason there may be symptoms referable to the central nervous system—even epileptiform convulsions and coma. Then, of course, there may be endocarditis and pericarditis sometimes with pericardial effusion. Ocular symptoms have been noted, mostly affecting the retina. Lymphadenitis occurs and the spleen may be enlarged. Blood cultures are usually negative, but streptococci may sometimes be found in the terminal phase of the disease. Blood cultures have been positive, too, in some of the cases in which the abacterial verrucal endocarditis of Libman-Sacks¹⁶ became converted to bacterial endocarditis. The disorder waxes and wanes over a period of a few months to a few years. During a remission the patient may seem to be almost well, the cutaneous lesions may disappear, the temperature return to normal and the other general symptoms improve. Sometimes, however, the first acute attack terminates fatally without a remission.

Although the appearance of the erythema may be late, or may not occur at all, the disease can nevertheless be diagnosed in its absence. O'Leary¹⁷ states that a diagnosis of systemic lupus erythematosus is warranted in the absence of cutaneous signs in a young woman with pains in a joint without roentgen evidence of bone change, a mild degree of fever, a high sedimentation rate and a leucopenia. It might be added that if there is also present a reversal of the albumin-globulin ratio, a reduced platelet count, albuminuria, anaemia, and the L.E. cell can be demonstrated, the diagnosis is certain.

Aside from avoidance of exposure to sunlight, rest and supportive measures as found necessary, there was no treatment used up to three years ago that would materially affect the course of this disease. Gold salts, bismuth and other remedies, useful in the chronic discoid type of lupus erythematosus, are harmful. Tocopherols have not helped. Surgical interference of any sort should be avoided. Even the extraction of a tooth may cause a serious exacerbation.

Whole blood transfusions are often indicated for the severe anaemia that frequently is present. This is a safe enough procedure for a first transfusion, but these patients are prone to develop antibodies to factors in the donor's red cells—factors not always detected by the usual blood matching technique. There is a young woman in my ward at the present time who had received 15 blood transfusions over a period of time without incident. Then following a transfusion of 500 cc. whole blood she developed within an hour a temperature of 105°F., nausea, and the urine was red with haemoglobin. She did not, however, develop anuria and made a rapid recovery; but

her haematocrit was not improved—she apparently haemolyzed all of the transfused blood. We thought this haemolytic reaction might be due to immunization to one of the rarer factors such as Kell, Duffy, Cellano, Kidd, and others, but Dr. Buchanan, Red Cross Serologist in Edmonton, was unable to demonstrate any of them. Test carried out in the Central Laboratory in Toronto gave similar results, but it was proved that the patient had a non-specific agglutinin in her serum active at 4°C. and 10°C. With two months this agglutinin disappeared from her serum and we were able to administer 620 c.c. whole blood, Group O, Rh positive, without incident. However, we took the precaution of giving only 20 c.c. on the first day, and, on the suggestion of Dr. R. E. Bell, at the same time we gave 25 mgms. ACTH over an eight-hour period, running in the blood at the end. On the second day we gave 50 c.c., then 100 c.c., 200 c.c., and finally 250 c.c. using the same procedure of giving the blood at the end of the day's administration of 25 mgm. of ACTH. What influence ACTH had in suppressing the agglutinin we do not know. Further study on this point is warranted.

Callender and Race¹⁸, described a remarkable succession of antibodies found in a patient with systemic lupus erythematosus who received multiple transfusions. No less than five immune antibodies were found. It is obvious, therefore, that if transfusions are to be given at all, the greatest care must be taken.

Duncan¹⁹ reports a female patient, age 31, with systemic lupus erythematosus who went into almost complete remission during nine months of pregnancy. She gave birth to a normal, healthy child and following this she suffered a sharp relapse. This flare-up, however, lasted only a few weeks and she then went into a partial remission and remained fairly well up to the time of reporting—a period of three months. This patient had most of the usual signs of systemic lupus erythematosus including the demonstration of the L.E. cell, but there was no albuminuria. Guy, quoted by Ellis and Bereston,²⁰ described a patient with subacute lupus erythematosus which had lasted for several years but cleared during several pregnancies and recurred after each pregnancy.

These two patients recall to mind the observation made by Hench²¹ several years ago that rheumatoid arthritis was reversible during pregnancy and also in patients of both sexes suffering from jaundice. Indeed, it was this observation (and the exclusion of the liver as a possible source) that led Hench and Kendall to the conclusion that if the substance causing this reversibility should prove to be a hormone, it would be a bi-sexual hormone; and with the field thus narrowed they began their epoch-making study of the effects in

rheumatoid arthritis of the hormones elaborated by the adrenal cortex and by the anterior pituitary gland.

It is apparent that systemic lupus erythematosus is also reversible in the pregnant state. However, where irreversible damage has already been done, such, for example, as in glomerular nephritis, the patient might die because of the extra load of pregnancy even though most or all of the other signs of systemic lupus erythematosus had been reversed. A careful assessment of the kidney function is the most important single factor in prognosis. Ellis and Bereston, as a result of a questionnaire sent to 280 American dermatologists, came to the conclusion that in subacute systemic lupus erythematosus the mother will go through pregnancy uneventfully although the rate of abortion is high. In the acute type 17 of 56 patients improved but 25 became worse and there were 14 deaths. These figures, they state, are about the same as one might expect in 56 patients with acute systemic lupus erythematosus without the complication of pregnancy in the time covered by the pregnancy. Pregnancy reverses systemic lupus erythematosus in one-third of the patients and does not increase the mortality. This is particularly striking in the subacute form in which more than one-half of the patients were improved and none died.

This brings us to the consideration of cortisone and ACTH and while one is hopeful that some form of hormone therapy may prove to be the answer, thus far they have not proved to be curative. We have now treated in the University Hospital with cortisone, or ACTH, or both, seven patients with systemic lupus erythematosus. Five of the patients are dead and all five had albuminuria. The remaining two are reasonably well and in both of these patients the kidney function has remained normal throughout. Most of the other signs were present, such as fever with pains in the joints but no roentgen evidence of bone change, leucopenia (800 and 1500), anaemia, increased sedimentation rate, reversal of the albumin-globulin ratio, and the L.E. cell was demonstrated. These two cases suggest a less grave prognosis in patients with normal kidney function.

In using these hormones it should be remembered that ACTH stimulates the adrenals to increase their production of endogenous cortisone, but the administration of cortisone itself suppresses the activity of the patient's own adrenals. It is well, therefore, when cortisone is administered to finish up with ACTH to stimulate the patient's adrenals to re-activity. Over-treatment must be avoided. Hench states, "We must use these hormones intelligently and safely in the presence of functioning adrenal glands; we must learn how to co-operate with them rather than try to dominate them or take over their functions."

Neuro-Surgery

Prefrontal Leucotomies

Seven Years' Experience in One Hundred and Thirty-three Cases

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Introduction

Pre-Frontal Leucotomy consists in cutting the white matter in each frontal lobe in the plane of the coronal suture, just anterior to the tip of the anterior horn of the lateral ventricle.

The purpose of Leucotomy is to try to break the connection between the patient's thoughts and emotions. "It is to relieve mental tension, to take the sting out of experience and thus hasten improvement, or to hasten recovery from mental disorder."¹

We report 133 cases of Leucotomies over a seven-year period. Series A—111 long-standing cases of mental illness, apparently hopelessly psychotic, 72 improved including 8.1% classed as Recovered. Series B—22 shock-fast cases, more recent admissions who were resistant to all forms of treatment, 64% showed improvement including 28% Recovered. In Series A there was a two to seven-year follow-up. In Series B there was a follow-up of one year only.

Surgical Procedures

Since Leucotomy was introduced by Moniz in 1935, there has been a large variety of techniques developed for its performance, but this fact alone would indicate that the final answer as to the best method of performing this operation has not been found.

The objective of the operation is the destruction of varying amounts of tissue in the frontal lobe of the brain. To achieve this, the skull has been entered in the fronto-parietal region, in the temporal fossa, through the roof of the orbit, or by turning back a frontal flap. Destruction of the brain matter has been effected with alcohol, wire and rotating leucotomes and sharp and blunt instruments of various shapes and sizes. The extent of interference with the brain has varied from section of the white matter in various planes, avoiding basal nuclei, to removal of selected cortical areas which are difficult to identify in practice. We have followed the original Freeman and Watts technique for the vast majority of our cases, as we felt that, in this way, we could become familiar with the technique of one particular method.

Our usual pre-operative sedative is Morphine Sulphate gr. 1/6th with Atropine Sulphate gr. 1/100th given one-half hour preoperatively. The

anaesthetic used for our earlier cases was ether, by the open drop method, but for the last eighty cases we have used intravenous pentothol sodium supplemented by local infiltration with 1% novocaine. The cortex was visualized before insertion of the leucotome. Our average operating time has been thirty minutes.

There were certain risks involved in undertaking the Leucotomy operation. These risks include the possibility of death from haemorrhage, the possibility of epileptiform seizures and post-operative diminution in mental capacity, which we have estimated at approximately 10%. We have been fortunate in that there have been few serious post-operative sequelae in our hospital. Seizures appeared in nine cases, but only three of these had more than two in number. One case had transient ataxia. One death occurred eleven days post-operative, in the eighth case, due to haemorrhage into the incision; and there have been no deaths directly attributable to the operation in the last one hundred and twenty-five cases.

Clinical Background

The introduction of the Pre-Frontal Leucotomy into our hospital was in answer to the need for more active therapeutic methods for the chronically ill, who comprised ninety per cent of our patients. In the treatment of these cases we had stressed activity therapy, including work, and reinforced and continued Electric Shock, with beneficial results in some cases and disappointing results in others.

The economic factor has been considered: the average cost of the undischarged patient, who would live out his life in the hospital, was estimated at \$30,000.00 per patient. But most of all, we were concerned with the tragedy of disturbed patients, the number of which in our hospital was unduly high. Forty per cent of our females and twenty per cent of our males were in this category. These patients were irritable, combative, destructive; many were dangerous, not all the time, but all of them some of the time. There were also deteriorated patients who disrobed, destroyed clothing and were dirty in their personal habits. By Leucotomy we hoped to relieve the stored-up tension and mental anguish of the patient, to improve his behaviour, to aid in his recovery, and failing this, to make him a better adjusted member of the hospital community so that he might work and play and get some pleasure out of living. This was in the interest of the patient himself, but also in the interest of other patients whose recovery he had retarded, due to his upsetting influence on the ward. It

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was in the interest of nursing staff who carried a heavy burden eight hours a day.

Method of Evaluating Results

The British Board of Control in presenting their report on 1,000 Leucotomies, 1947, pointed out "It would be possible to select from reports a series of extracts purporting to prove almost anything."¹ They admitted that the mesh of their inquiry had been too coarse; they indicated that a standard table of measurement was needed and a uniform record to compare notes and reports.

In an attempt to meet this need we introduced the Henderson-Schultz Modification of the Gardiner Behaviour Scores. We felt that by means of plus and minus scores, we could evaluate the mental status of the patients with reasonable accuracy and obtain more systematic and reliable data for comparison of their pre- and post-operative conditions. Consequently, in co-operation with the medical and nursing staffs, a comprehensive scoring system was designed, worked out, and put into operation. The essential units of this scoring system were the following score sheet and the key which accompanied it.

Henderson-Schultz Modification of Gardner Behaviour Chart

Behaviour:

	Score Range
1. Attention to Appearance	3 to -3
2. Sleep	3 to -3
3. Appetite	3 to -3
4. Sociability	3 to -3
5. Activity Control	3 to -3
6. Noise Control	3 to -3
7. Temper Control	3 to -3
8. Combativeness Control	3 to -3
9. Care of Property	3 to -3
10. Self Entertainment	3 to -3
11. Co-operation in Routine	3 to -3
12. Work Capacity	3 to -3
13. Initiative When Alone	3 to -3
14. Initiative Supervised	3 to -3
15. Directability	3 to -3

Psychotic Symptoms:

1. Hallucinations	0 to -3
2. Delusions	0 to -3
3. Orientation	3 to -3
4. Interest	3 to -3
5. Tension (Ease)	3 to -3
6. Reason	3 to -3
7. Concentration	3 to -3
8. Misidentification	0 to -3
9. Flight of Ideas	0 to -3
10. Decision	3 to -3

Signs of Depression:

1. Depression	0 to -1
2. Suicidal Intent	0 to -1
3. Self Accusatory	0 to -1
4. Apprehension	0 to -1
5. Evasive	0 to -1
6. Monotone	0 to -1

Miscellaneous:

1. Euphoria	0 to -1
2. Procrastination	0 to -1
3. Hoarding	0 to -1
4. Profanity	0 to -1
5. Over-talkative	0 to -1
6. Word Blocking	0 to -1
Total	63 to -87

Example From Key

Combativeness Control

- 3 Is continually violent, attacking and fighting, required restraint.
- 2 Assaults patients or staff nearly every day.
- 1 Occasionally assaults patients or staff.
- 1 Rarely assaultive.
- 2 Never strikes except in self-defence.
- 3 If attacked attempts to protect self without hurting the attacker.

These are an adaptation and expansion of the Gardiner Behaviour Chart, developed by Doctor Paul Wilcox and used with his permission.

The scores compiled were not just thumbnail sketches of the patient made at irregular intervals by psychiatrists, but were made by members of the nursing staff who had the patients under observation twenty-four hours daily. From these scores, tables were compiled which enabled us to plot graphs showing the monthly development or recession of symptoms. By making composite graphs of all symptoms we had a fairly true picture of the patient's reaction to the operation. When the patient was conferenced, these scores were of great value to the psychiatrist in evaluating progress. In most cases there was a close correspondence between clinical judgment and table scores, but if there was not, the medical staff was very cautious in making decisions contrary to table scores.

In compiling our results, we used the differences between pre- and post-leucotomy scores, rather than the comparison of actual pre-leucotomy and post-leucotomy scores, for determining the amount of improvement resulting from the operation.

In addition to aiding in clinical evaluation the Henderson-Schultz Modification of the Gardiner

Scores was used to show changes with respect to symptoms. Improvement and regression in symptoms were tabulated, and graphs compiled. The zero line on the graph represents the mean pre-leucotomy level for each symptom. The numbers above the zero represent a mean improvement from the pre-leucotomy condition of 1, 2, or 3 scale points. The -1 below the zero represents a mean deterioration of one scale point.

Effect on Delusions and Hallucinations

Sixty-four cases were reported as delusional prior to their operation. Twenty-six, or 40%, lost them and remained free following Leucotomy. Six, or 10%, improved and thirty-two, or 50%, remained unimproved. The British Board of Control gave 36.6% recovered, 9.8% improved and 53.2% unimproved.¹ Thus, it is reasonable to expect that 35% to 40% of delusional patients will clear up following Leucotomy.

One hundred and eleven patients with long-standing illness, were leucotomized. Eighty-one were reported as hallucinating prior to Leucotomy. Eleven, or 13.6% lost their hallucinations and remained free of them. (British Board of Control reports 20%). Another 18% lost their hallucinations temporarily, but most of them returned after the first month. Of the seventy patients that hallucinated following Leucotomy, 73% showed improvement either by a decrease in hallucinatory activity or by a lessening of reactions to hallucinations.

(See Graphs 1-8)

Selection of Cases and Clinical Results

For the most part, we selected cases which, in our opinion, were hopelessly mentally ill and resistant to all other forms of treatment. The first group (Series A) were violent, combative, with hospitalization up to twenty years.

Some of the earliest cases had not had the opportunity of Metrazol, Electric Shock or Insulin, because we felt these treatments would be of no avail, after many years of hospitalization. But following the introduction of these treatments, nearly all cases had received full courses of Convulsive Therapy and three months' course of Insulin Shock, including deep coma. The twenty-two cases in the second group (Series B) were selected because, from our previous findings, they were resistant to all other forms of treatment, yet had a fair chance of recovery, given the opportunity of Leucotomy. As there has been a follow-up of two years only in the latter group, we wish to point out that these figures must be still received with some caution, as any follow-up of less than two years is of doubtful value. However, in our experience, if relapses occur, they do so in this two-year period.

TABLE I. ALL CASES (LEUCOTOMIES)

Source of Information	Number	Recovered	Improved	Slightly Improved or Unimproved	Died
ZEIGLER ² (Results — 17)					
1943 (American Centres)	618	34.8%	31.4%	29%	(2%)
BRITISH BOARD OF CONTROL 1947 ¹	1000	24.8%	42.8%	26.4%	(3%)
BOSTON PSYCHOPATHIC HOSPITAL 1950 ³	181	26%	28%	46%	—
BRANDON HOSPITAL 1950 — "A" Series	111	8.1%	62.1%	29.8%	(1)
1951 — "B" Series	22	28%	36%	36%	(0)

TABLE II. SCHIZOPHRENIA (LEUCOTOMIES)

Source of Information	Number	Recovered	Improved	Slightly Improved or Unimproved	Died
WALKER ⁴ (16 authors) 1944	298	17%	24%	58%	(2)
BRITISH BOARD OF CONTROL 1947	599	16.2%	46%	37.8%	—
BOSTON PSYCHOPATHIC HOSPITAL 1950	111	14.4%	24.4%	61.2%	—
BRANDON HOSPITAL 1950 — "A" Series	94	6.4%	65%	28.6%	(1)
1951 — "B" Series	19	26%	37%	37%	(0)

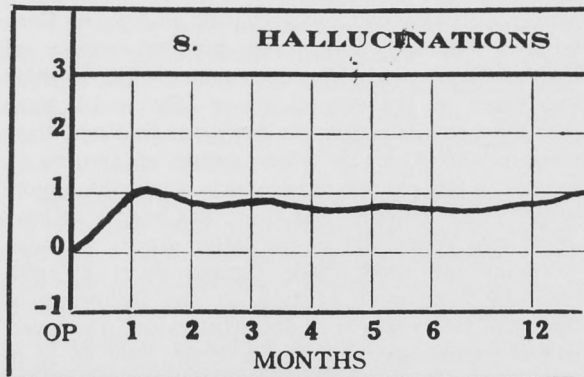
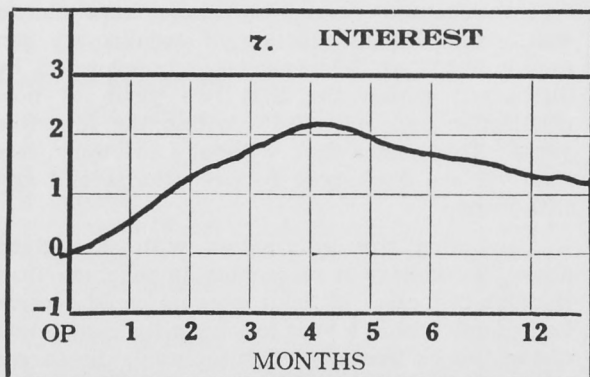
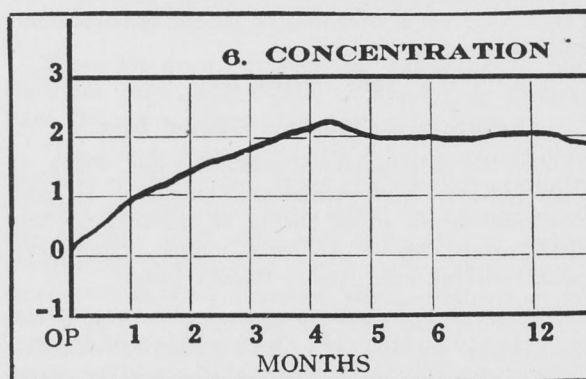
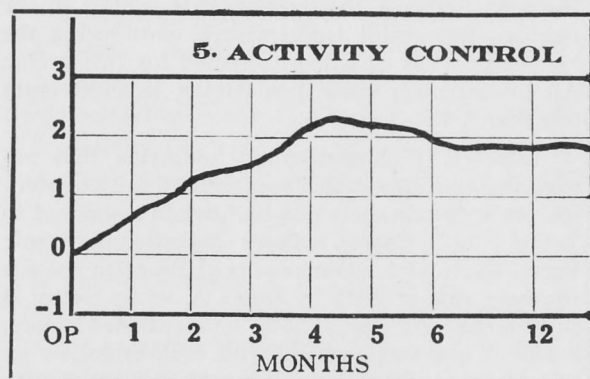
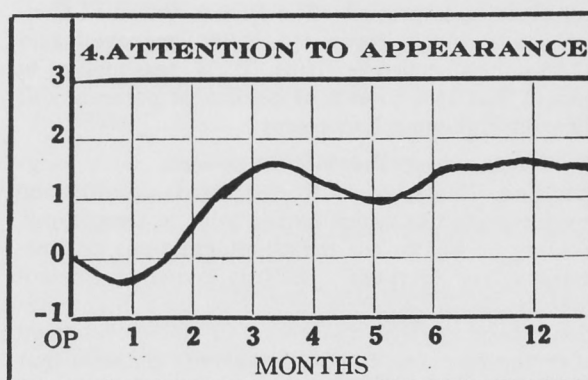
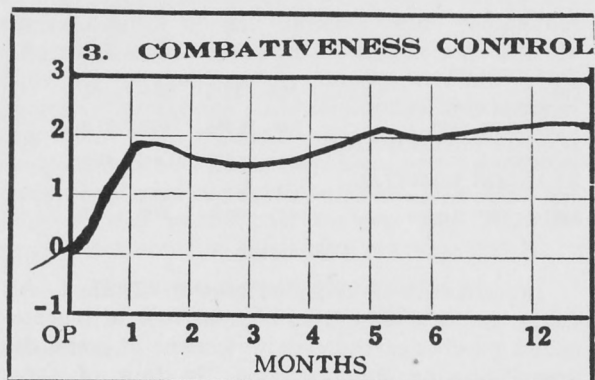
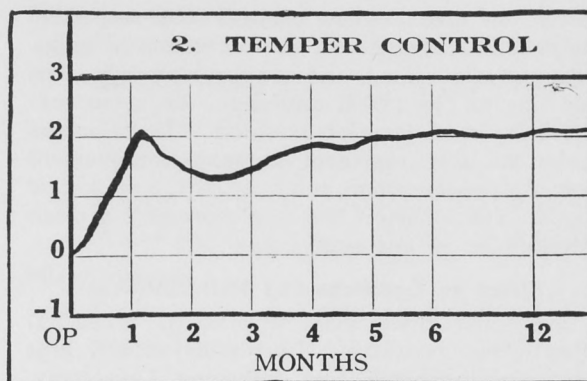
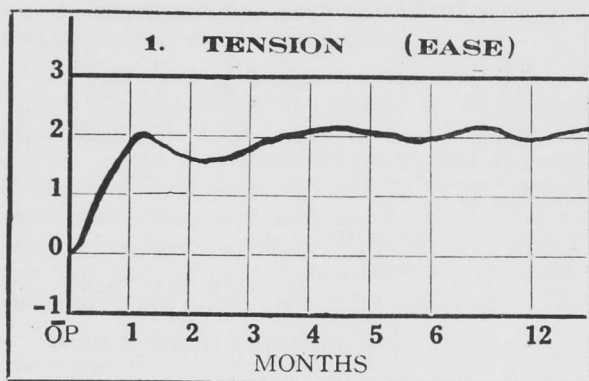
Discussion

Investigation of other authors^{1, 5}. (Table I—All Cases) indicate that from 50% to 70% of leucotomized psychotics show improvement of some degree following the operation. In four of these reports the recovery rate is over 24%. In Brandon Hospital, Series A, the recovery rate is 8%. In our opinion, this result is surprising, considering the "hopeless" type of patient selected for this group. All investigators show few deaths, in most cases less than 1%.

Table II (Schizophrenia) indicates that recoveries, resulting from leucotomized schizophrenics, are approximately one-half, when compared to Table I (All Cases). Three investigators show from 14% to 17%. Our results at Brandon show a recovery rate of 6.4% in Series A, while Series B show a recovery rate of 26%. As mentioned before, Series B is a small series, with a short follow-up and consequently this result must be accepted with caution.

Investigations carried out here have shown that, since the introduction of Insulin, we can expect 56.1% of Schizophrenic admissions to be discharged within the first two years of hospitalization and only 59.6% within the first five years. This means that, without Leucotomy, less than 4% are discharged between the second and fifth years.

Combining this information with that given above, we believe it reasonable to conclude that, if shock-fast cases of Schizophrenia could receive Leucotomy within a year following the completion of their shock treatment, Schizophrenic discharges may be increased by from 10% to 20%.



If the patient is leucotomized within four years of onset of illness, much better results may be expected. (See Series B). This agrees with the results of the British Board of Control and other investigators.

Summary

1. The Henderson-Schultz Modification of the Gardiner Behaviour Chart provided a standard for recording the clinical progress of the leucotomized patient. It proved of great value as it recorded monthly, in integers, the change in symptoms. This permitted the setting up of tables and graphs, which resulted in a finer analysis of the results of this operation. Our results indicate that, in most cases, progressive improvement takes place up to the fourth month.

2. Leucotomy was used in this hospital for cases resistant to all other forms of treatment. In one hundred and eleven long-standing cases of mental illness, apparently hopelessly psychotic,

seventy per cent showed clinical improvement—including eight per cent recovered, and twenty per cent discharged.

3. We believe that, in patients resistant to other forms of treatment, Leucotomy should receive careful consideration.

Acknowledgments

We wish to acknowledge the work performed by our Research Colleague, Mr. A. L. Henderson, B.Sc., who gave valuable assistance in the preparation of this work.

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Paediatrics

Some Aspects of Hemorrhage in the Newborn

Maurice Berger, M.D.

Cephalhematoma

A cephalhematoma is an accumulation of blood under the periosteum of a cranial bone. It is due to the trauma of birth with or without the use of obstetrical forceps. Recently a survey of the incidence of cephalhematoma in the newborn was conducted by Kendall and Woloshin¹ of the Departments of Pediatrics and Radiology at Temple University School of Medicine. They followed 2,774 babies of which 1,568 were on the private service of the hospital and 1,202 were on the public service. The overall incidence of cephalhematoma was 2.49%.

All cephalhematoma were X-rayed. 25% showed skull fractures under the cephalhematoma. Single fronto occipital, single 30 degrees fronto occipital, stereolateral (side of the cephalhematoma) and single tangential views were made.

83% of the cephalhematoma occurred on the private service and 17% occurred on the public service. The authors feels that the difference is statistically significant and must be due to differences in obstetric techniques. Forceps were used more frequently on the private service.

Most of the cephalhematoma occurred over the right parietal bone—a small number over the left parietal bone on some cases over both parietal bones. There was only one instance of a cephalhematoma over the occipital bone.

75% of the infants were delivered with forceps. Of those with cephalhematoma 93% were delivered with forceps. 15 out of 16 with fractures of the skull were delivered with forceps. In only one case was the cephalhematoma associated with intra-cranial bleeding i.e. sub-dural and sub-arachnoid hemorrhage.

In general cephalhematomas disappear without any therapeutic measures and without sequelae. The above series including the infants with skull fracture got along very well. However, initially, bleeding into a cephalhematoma and into the scalp of an infant after a difficult delivery may be extensive enough to necessitate blood transfusion.

Vitamin K and Hemorrhagic Disease of the Newborn

In the *Advances in Pediatrics* volume v Dam et al reviews the relationship of vitamin K and hemorrhagic disease of the newborn.

The newborn infant has a low prothrombin level. In addition to vitamin K deficiency other factors may be involved, (1) the infant may have a limited ability to produce prothrombin; (2) there may be other unknown coagulation factors involved; (3) vascular factors may be responsible in part for the hemorrhage.

In the newborn infant the prothrombin level is 25-50% of the adult level. In the breast fed infant the prothrombin level falls often to 10% of adult level on the 2nd day of life. 10% is considered the hemorrhage level.

In infants given sufficient amounts of artificial feeding the drop of prothrombin on the second day usually does not occur. In breast fed infants the rise in prothrombin starts the third day of life and rises markedly until the end of the 1st week; after that there is a slower rise until the end of the first year when adult levels are attained.

In artificially fed infants the rise in prothrombin begins within twenty-four hours of birth and at the end of the first week is a little higher than that of breast fed infants. In infants given vitamin K at birth the prothrombin starts to rise within one or two hours. If a sufficient dose of a patent synthetic vitamin K preparation is given to a mother during labor the initial fall in prothrombin in the infant is avoided and there is a gradual rise in prothrombin level towards the end of the first week. A dose of 20 mgms. of a suitable preparation given 14-18 hours before delivery is considered adequate.

One cannot affect the initial low level of prothrombin by the administration of vitamin K; one can only prevent the drop that occurs on the second day of life. The original level of prothrombin is very low in asphyxiated infants. This is thought to be due to intra-cellular metabolic disturbances which take place in severe anoxia.

Other factors that have been associated with a low prothrombin level at birth, (1) mothers with a severe albuminuria; (2) large doses of barbiturates during labor.

Dam claims that as little as 75 ccs. of cow's milk daily will prevent the fall in prothrombin that occurs on the 2nd day of life.

There have been conflicting reports on the efficacy of giving vitamin K in the prevention of hemorrhagic disease either to the mother in labor or to the infant.

Some authors report a decreased incidence of hemorrhagic disease in the infant—some authors have noted very little effect from the prophylactic use of vitamin K. Dam feels that (1) the potency of the preparation of vitamin K administered to the mother is important in the evaluation of results and (2) the vitamin K (20 mgms. of a good preparation) must be administered between 4 and 24 hours before delivery.

It would seem a good practice to give vitamin K to the mother where a prolonged and difficult labor is anticipated and of course to the infant as well. Vitamin K prophylaxis might also be a good idea in those hospitals where the breast fed infant is given glucose rather than a cow's milk supplement. There is an impression locally that

hemorrhagic phenomena occur more often in hospitals where glucose only is used.

Post-hemorrhagic Shock in the Newborn

Post hemorrhagic shock in the newborn refers to the birth of a baby suffering from a severe anemia and the shock of blood loss. This usually occurs as a result of tearing of the umbilical vessels during labor which may occur under the following circumstances: (1) in Placenta Previa; (2) in Vasa-Previa—where a blood vessel unsupported by the cord or placenta lies over the internal os as it courses through the fetal membranes; (3) Placenta Previa Caesaria—where the umbilical vessels traverse the site of incision in caesarian section; (4) Abrupto Placentae; (5) Hypothetically, where there is a microscopic leak of blood from the fetal circulation into the maternal circulation.

The infant suffering from post-hemorrhagic shock is pale, breathes feebly and rapidly, may cry weakly, may have a rapid heart beat and may make slight movements and may have some muscle tone. The infant suffering from asphyxia pollida is pale, but does not breathe, does not have any tone in its muscles and has a slow heart beat. The baby suffering from blood loss does not respond to oxygen with a return of color. The infant suffering from asphyxia pollida who begins to breathe will have a return of color with administration of oxygen.

One may have to consider Erythroblastosis Foetalis in the differential diagnosis of such an infant. If the mother is Rh positive this is quickly ruled out unless there is a rare sensitization.

The treatment of post-hemorrhagic shock in the infant is immediate transfusion with emergency blood (O Rh negative). This should be repeated as necessary. Seventy ccs. of blood is an average amount to begin with i.e. 10 ccs. per pound. The blood may be administered via the umbilical vein or via scalp vein or by cut down.

The diagnosis should be made by the obstetrician and treatment administered under his direction as soon as possible. Although this condition is rare its occurrence can be anticipated in the circumstances detailed above, and emergency treatment of the infant by massive blood transfusion is life-saving.

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Clinico-Pathological Conference

Deer Lodge Hospital

Mr. T. G. Age 69. Veteran of W.W. I—pensioned for flat feet and laryngitis (?hysteria). Worked as an orderly D.L.H.

1937—Seen in D.L.H. c/o aching precordial pain similar to that he had suffered overseas. Hgb 42%; RBC 2.06; WBC 9,500; poikilocytes and macrocytes. BP 120/70. No G.I. symptoms or melena.

Five weeks later Hb was 75% but treatment if any was not recorded.

1942—Quinsey. BP not recorded. E.K.G. normal. Small amount of albumin and granular casts in urine.

1945—Ba. Series—duodenal crater—no clinical notes.

1948—January—infected hand. Hgb 91%; urine .02-04% albumen, 12-14 RBC.

1948—March 12. Admitted c/o aching pain in left chest radiating to right axilla unassociated with effort, respiration or position. Had also lost 20 pounds weight in 12 months and had headache, insomnia and anorexia.

Physical exam.: BP 180/110, 160/95, no edema and tenderness in left cost-vertebral angle.

Hgb 60%; RBC 3-4 mil. Sed Rate 95—53mm. Urine—S.G. 1.023-1.008; Alb. .45-.01%; Micro.—80-100 pus (one occasion) occ. R.B.C. and 3-5 WBC; granular casts and hyaline casts.

March 16—Harsh systolic murmur was first heard in aortic area, T.P.R. remained normal except one day, when temperature rose to 100.2°. The following x-rays were negative: I.V.P., skull, chest, Ba. Series, Ba. enema. Bone marrow: hypoplastic, toxic depression? Discharge diagnosis: April 7, 1948: Subacute nephritis.

1949—May 19. Re-admitted with massive gastro intestinal haemorrhage (melena) and BRB. per rectum. Admitted 30 year history of gaseous dyspepsia (bloating) with alkali relief. Hgb 48%.

Px—Harsh systolic apical and aortic murmur, chest clear, pitting oedema of legs. Ba. series, enema and sigmoidoscopy negative. Transfused to 70% hgb.

Following recovery from G.I. hemorrhage began having severe nocturnal headache. BP 205/165, 250/150, 208/170, 206/160. C.T.R. 15.5:30; Sedation test BP 120/70, and one hour after 3 gr. sod. Amytal Concentrated to 1.023 with .23% alb. Improved on phenobarb and was discharged Aug. 24, 1949. Oedema free and with Hgb 94%.

Sept. 14, 1949. Admitted c/o headache, dizziness and fatigue. Px mild C.H.F. and improved on digitalis and salt restriction. Mercurial diuretics not given because of albuminuria .29, and B.U.N. 36 mg%. Discharged Hgb 97% but still showed peripheral edema.

Feb. 25, 1950. Re-admitted in C.H.F. with orthopnea. BP 180/120; Fit for discharge after 5 weeks treatment.

June 26, 1950. Another massive G.I. hemorrhage. Hb 50%; Transfused to 80% in 5 days. No signs of C.H.F. this admission. Ba. series again normal. Discharged Aug. 15, 1950. E.K.G. interpreted as Myocardial ischemia.

March 2, 1951. Seen in O.P.D. with history suggestive of paroxysmal nocturnal dyspnea. Px—no signs of failure. Harsh systolic murmur aortic area transmitted to neck, also a thrill felt. BP 210/130.

Aug. 14, 1951. Another attack of chest pain. Px—Bruising spontaneous over tibia and sternum. Capillary fragility demonstrated by tourniquet. Bleeding and clotting time and platelet count normal. Developed symptoms of prostatism, Residual urine—3 oz. Hgb 80%; RBC 4.0.

Required admission in September, 1951, for 10 days for treatment of failure and he had a third attack of melena in January, 1952. Was unable to tolerate oral iron therapy on discharge and Hgb dropped from 80-67% one month after discharge.

Was admitted in May, 1952, for I.V. iron. Serum iron 175 gamma before therapy and Hgb showed no response.

May 29, 1952. Admitted with fever 102°, C and E and blood streaks. Chest x-ray—infiltration both bases. Responded to antibiotics. B.U.N. found to be 88 mg% and on a high fluid intake this was reduced to 50 mg%; however, he developed more C.H.F. and a right pleural effusion. CTR 17.5 cm; 29 cm. Discharged July 30, 1952. BP 170/120.

Aug. 17, 1952. Admitted with usual complaint of left chest pain and dyspnea. BP 180/140. Chest x-ray unchanged re effusion.

Aug. 27, 1952. Thoracentesis 100 cc straw colored fluid.

Aug. 28, 1952. Much improved re dyspnea, "feeling frisky." 3 p.m. sleeping—found dead.

* * *

Autopsy Findings

The body is that of a white male, weighing 123 pounds and measuring 5 feet 9 inches in length of approximately 65 years of age in a state of fair nutrition.

There is a thoracentesis puncture wound in the right chest posteriorly between the 7th and 8th ribs in the line of the angle of the scapula.

Thoracic Cavity

On opening into the thoracic cavity, there are a few fine easily broken adhesions in the right base. There is also a pleural effusion of 725 cc of

straw colored fluid on the left, and 125 cc on the right.

The right lung weighs 850 gms. The lung is fairly firm throughout and at the lateral costo-diaphragmatic angle, there is an area of old infarction 3 x 2 x 2 cms and shows a pale surface and firm texture. The cut surface of the upper lobe shows marked congestion and a mottled reddish appearance.

The heart weighs 740 gms and is grossly enlarged, the enlargement being solely due to hypertrophy of the left ventricle. The right auricle appears normal. The tricuspid valve seems dilated and measures 15 cms. The R.V. cavity is encroached upon by the convex surface of the bulging interventricular septum. The right ventricular wall measures 2-5 mm. The pulmonary valve appears normal and measures 8 cms. The left auricle appears somewhat enlarged and the left auricular cavity and ventricular cavity appear somewhat dilated. The mitral valve measures 9 cms. The posterior cusp is much smaller than the anterior cusp.

The left ventricular wall measures 22-25 mm in its thickest portion. The aortic valve is grossly calcified and is seen to cause marked stenosis. There is little regurgitation demonstrated by filling the aorta with water. The valve is preserved. The left coronary ostia is partially blocked by a spicule of calcification approaching up from one of the valve cusps. Both coronaries are examined throughout their course and are soft and widely patent.

Abdominal Cavity

The kidneys are small and contracted. The left kidney weighs 100 gms. The capsule strips readily but shows a fine pebbly, scarred surface. The cut surface shows a relative increase in the renal pelvic fat, and the cortex of the kidney is shrunk and in places measures about 1 or 2 mm. The pyramids appear normal. The mouths of the cut vessels are normal. There are a number of enlarged nodes in the left kidney hilum which have been removed for sectioning.

The gastro-intestinal tract is opened throughout its entire length and there is nothing of note except for a shallow diverticulum just distal to the pylorus.

Microscopic Findings

Heart—The myocardium is markedly hypertrophied.

Lungs—Left—Section shows oedema, atelectasis and deposition of blood pigment in phagocytes.

Right—Section shows an old anemic infarct,

surrounded by fibrosis. The lung also shows marked oedema and deposition of blood pigment.

Liver—Section shows congestion of central vein areas and moderate increase of fibrous tissue.

Kidney—Sections show advanced arteriolar nephrosclerosis with destruction of much of the kidney parenchyma.

The associated findings of hypertension and renal failure may be met within a disturbing variety of pathological processes. Benign and malignant nephrosclerosis, chronic glomerulonephritis, periarteritis nodosa, polycystic kidney disease, and renal amyloidosis are only a few of these processes.

The concept of a vicious circle in renal and vascular disease was offered by Ellis in 1942. The work of Goldblatt, 1934, and Wilson and Byrom, 1939, strongly supported such a concept. These workers produced hypertension in dogs and rats by a variety of experiments with the production of renal ischemia by means of renal arterial clamps. It was found that the microscopic picture of malignant nephrosclerosis could be produced by simply elevating the blood pressure and that the kidney histology in malignant hypertension was probably the result, rather than the cause, of the hypertension. If one kidney of a rat was made ischemic with resulting hypertension, the opposite kidney showed microscopic changes, while the clamped kidney did not (presumably protected by the clamp from the elevated BP). The removal of an ischemic kidney did not always result in a return of the blood pressure to normal and the condition was often seen to progress. Here the renal vascular change produced by hypertension caused further renal ischemia on the sound side and hence more hypertension (i.e.) a vicious circle existed. This mechanism in the experimental animal may explain the failure of nephrectomy, in unilateral chronic pyelonephritis to relieve the hypertension (i.e. irreversible and progressive changes may have already occurred on the normal side).

That the microscopic picture of nephrosclerosis is the result and not the cause of hypertension is further supported by the work of Smithwick. Renal biopsy was done during sympathectomies performed on patients for hypertension and 50% showed little or no evidence of organic vascular change.

It is thus seen that chronic hypertension from any cause may make the interpretation of micro-sections of the kidney difficult because of the added changes due to nephrosclerosis and its effect on glomeruli, etc.

Benign Hypertension	Chronic Glomerulonephritis	Chronic Pyelonephritis
Gross: All Show Granular Contracted Kidneys		
Bell's series 1/3 showed combined wt. less than 200 gms. Fine pebbly granular surface	Degree of contraction depends on duration and degree Coarser irregular nodularity	Scarring of pelvis occasionally pyelitis cystica Broad shallow "U" shaped depressions
Purple-red hue	Capsular adhesions with tearing of cortex on stripping	Hydronephrosis Frequently one kidney smaller than other
Normal capsular stripping	Paler color	Dense capsular adhesions with difficult stripping
Arterioles Subintimal fibrosis (Seen in any hypertension Reduplicated internal elastic lamina)	Usually no reduplication	Endarteritis obliterans (that associated with chronic infection)
Arrangement Patchy with intervening normal glomeruli	More diffuse involvement (most glomeruli show some changes)	Compact groups of fibrosed glomeruli
Tubules A matter of degree usually compensatory dilatation of tubules and casts in distal convoluted tubules more marked in nephric kidney		Colloid casts very marked
Glomeruli Collagenous thickening of basement membrane of glomerular capillaries with narrowing of lumen Concentric and eccentric fibrosis of Bowman's capsule progressing to fusion with glomerular tuft Some glomeruli escape	Some hypertrophied 2x normal size Variation in degree of involvement but most show some changes Adhesions loop to loop and loop to capsule	Disproportionate thickening of Bowman's capsule in contrast to relative integrity of glomerular tufts.

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Victorian Order of Nurses

The publicity committee of the Winnipeg branch of Victorian Order of Nurses welcomes the opportunity to bring information regarding the Order's work to the physicians of Manitoba, through the medium of the *Manitoba Medical Review*. The immediate past president of the Manitoba Medical Association, Dr. A. M. Goodwin, is chairman of our Medical Advisory Committee and as such gives us invaluable assistance.

The Victorian Order of Nurses is a national public health nursing organization with 113 branches scattered from Cornerbrook, Newfoundland, to Victoria, B.C. Manitoba has only one branch and it is located in Winnipeg. Nineteen registered nurses are employed and they care for patients in their homes, in all cases carrying out the attending physician's orders. The average time spent on a nursing visit is one hour and this

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Literature on application

A-253

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Around the Hospitals

Grace Hospital

The Medical Indications of Abortion

Reported by W. J. McCord

Panel Discussion:

L. R. Coke (Chairman), W. J. McCord, F. G. Allison, J. G. Pincock and G. A. Little.

Dr. McCord led the discussion. He defined abortion as expulsion of the foetus before viability or the 28th week of pregnancy. The incidence of abortion is difficult to arrive at because in many cases no medical attendant is called. Estimates range from one for every four normal births, to one for every six normal births. Following the First World War induction of abortion was legalized for economic reasons, in some countries. In 1919 there was one abortion for every two births in Hamburg. In 1927 there were 45,851 abortions and 53,369 births in Moscow. In the Grace Hospital during the four-year period 1949-1952 there were 810 abortions and 8,397 births, about one abortion for ten births.

He classified abortion under two headings: (1) Natural (spontaneous or unintentional). These included such conditions as pelvic tumors, displacement, endocrine dysfunction and incapacity to produce normal embryos. Dr. Monie's work was mentioned in this latter connection. (2) Artificial (intentional or induced). This was further classified as (a) Lawful (therapeutic) and (b) Unlawful (criminal).

The discussion was confined to therapeutic abortion. All legal considerations aside, the medical man is on safe ground if he induces therapeutic abortion to save the mother's life or to prevent serious injury to her. The sentimental, economic or social considerations must not be allowed to enter into the problem. The medical practitioner must be certain that continuance of pregnancy will certainly endanger life, not that it may endanger life. The indications for therapeutic abortion were:

- (a) Conditions resulting from the pregnancy.
 1. Hyperemesis grvida.
 2. Toxaemias not responding to treatment.
 3. Pyelitis of pregnancy.
 4. Hydatidiform mole.
 5. Acute hydranmios.
 6. Missed abortion.
 7. Inevitable abortion.

B. Associated conditions affected by the pregnancy:

1. Heart disease.
2. Chronic nephritis.
3. Pulmonary tuberculosis.
4. Pernicious anaemia.
5. Thyrotoxicosis.
6. Diabetes.
7. Disseminated Sclerosis.
8. Epilepsy.
9. Psychosis.
10. Mental Defectives.
11. Malignant growths. (Cervix-breast, etc.).

In Grace Hospital during the five-year period 1948-52 there were sixteen therapeutic abortions performed. The indications were mental and nervous diseases (5), cardiac disease (3), Pulmonary tuberculosis (2), Orthopedic reasons (2), chronic nephritis (1), Hyperemesis gravidarum (1), cancer of the colon (1) and hydatiform mole (1). Of these sixteen cases nine were sterilized at the same time. He outlined the best methods to use depending on the present stage of pregnancy of the patient.

Dr. Allison discussed the question of cardiac conditions complicating pregnancy. Some cases of mitral stenosis and congestive heart failure require interruption of pregnancy in order to save the patient's life. However, many heart patients can be carried to full time with special care.

Dr. Pincock, in discussing the pre-partum psychosis suggested that most of them can be carried to term and delivered, the patient may require mental hospital routine. If they are unusually disturbed and in possible danger of dying from exhaustion, pregnancy may have to be terminated. In cases of hysteria adequate psychiatric treatment may be all that is required. The same is true in cases of depression. In the mental defectives the problem is one of eugenics and is not medical. When epilepsy is present in pregnancy no problem presents itself unless status epilepticus ensues. Termination of pregnancy in cases of paraplegia is usually not necessary. In poliomyelitis cases caesarian section may be necessary.

Dr. Little discussed psychiatric conditions complicating pregnancy.



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Fugitive Pieces

J. C. Hossack, M.D., C.M. (Man.), Editor

On Early Rising

The mild winter, not yet quite over, is wearing to its close but it will be May ere these words meet your eyes. The grass will then be green as will also be the trees and men will sing "For, lo, the winter is past, the rain is over and gone; flowers appear on the earth; the time of the singing of birds is come and the voice of the turtle is heard in our land." The translators who served King James and his subjects, and us, so well had an ear for music. To have added the word "dove" after turtle would have spoiled the rhythm and, in those days, would in any case have been an unnecessary addition.

I am not certain whether or not the turtle dove inhabits these latitudes; but there is, I know, a "mourning dove" who softly repeats a simple, melancholy chant not always heard, for she plays her little instrument in a noisy orchestra.

Years ago when I first moved to the pleasant suburb where I still reside, houses were few and far between, and trees were many and close together. Then each year about this time birds of various sorts would appear from nowhere, and build little houses behind the screen of burgeoning leaves, and there live and love when not engaged in finding food or uttering song.

I had many of these colourful neighbours. I gave them such protection and shelter as I could, and still I was their debtor; for every morning they roused me with their singing. There were few else to hear it, and so it was easy to take it as a personal invitation to rise and, with them, enjoy the morning. Indeed, at first they would not let me sleep, and so I would rise and sally forth into the cool, fresh air in which the world is bathed at dawn. Surely there is no more pleasant time, for a new day, like a new life, is fragrant and full of promise. And the birds, taking that sweet fragrance which is so pleasing to our nostrils transmute it by their simple alchemy into sounds that charm our ears.

But it is not only the intoxication of the morning air that sets free their notes, and the rousing of mortals is merely incidental. The singing is an act of devotion. It is the office of Prime, and gathered in their leafy cathedral, with their eyes turned reverently to the east, the feathered choristers pour forth their melodious orisons to the god of day.

It is easy in the presence of the rising sun to transport oneself on the wings of fancy to Chaldea

or Egypt or Attica and become one of those who saw ascending before them something other than an insentient ball of fire. Through their eyes one sees Aurora touching the clouds with her rosy fingers and making them blush; can see the harbingers of day appearing as a tinge of gold that widens and deepens slowly so that the glorious majesty of Phoebus may not too suddenly be revealed.

In our new country we look around and see little that counts a century. Yet above us is the oldest thing in existence, a link between the present and the remotest past. The sun that shines today is the same that watched the first beginnings of our race, that has seen the rise and fall of empires, that gave light to the builders of the pyramids and to the burners of Troy, and gives it now to those who have wrested from Nature her most dangerous secret, the secret of the sun itself, the secret of destruction.

How many dawns have there been since the first one? How many are left? A little nibble at the fruit of the Tree of Knowledge of Good and Evil brought about the expulsion of our first parents from Eden. The deeper bites that modern scientists have taken are liable to expel us from the earth.

After, all, listening to the birds sing at dawn is not so very far away from the day's work and is a good beginning for it, because Apollo was not only the god of light but of music also, and of medicine. "The variable composition of man's body hath made it as an instrument easy to distemper; and therefore the poets did well to conjoin music and medicine in Apollo, because the office of medicine is but to tune this curious harp of man's body and reduce it to harmony."

I would linger while the sun climbed higher, and till the birds, having reached the end of their service would scatter to go about the day's business. Then following their example, I would set forth to tune (or try to tune) such curious and distempered harps as might come my way, and were capable of being "reduced to harmony."

Tomorrow, I would say, the birds will sing again and I may rise with them but I hardly think so. I must not cloy my appetite for such delicate refreshments; for, if surfeited, that appetite might sicken and so die. The charm of the experience lies in its infrequency. It is very nice to get up in the morning but really, in the words of Harry Lauder, "It's nicer to lie in your bed."

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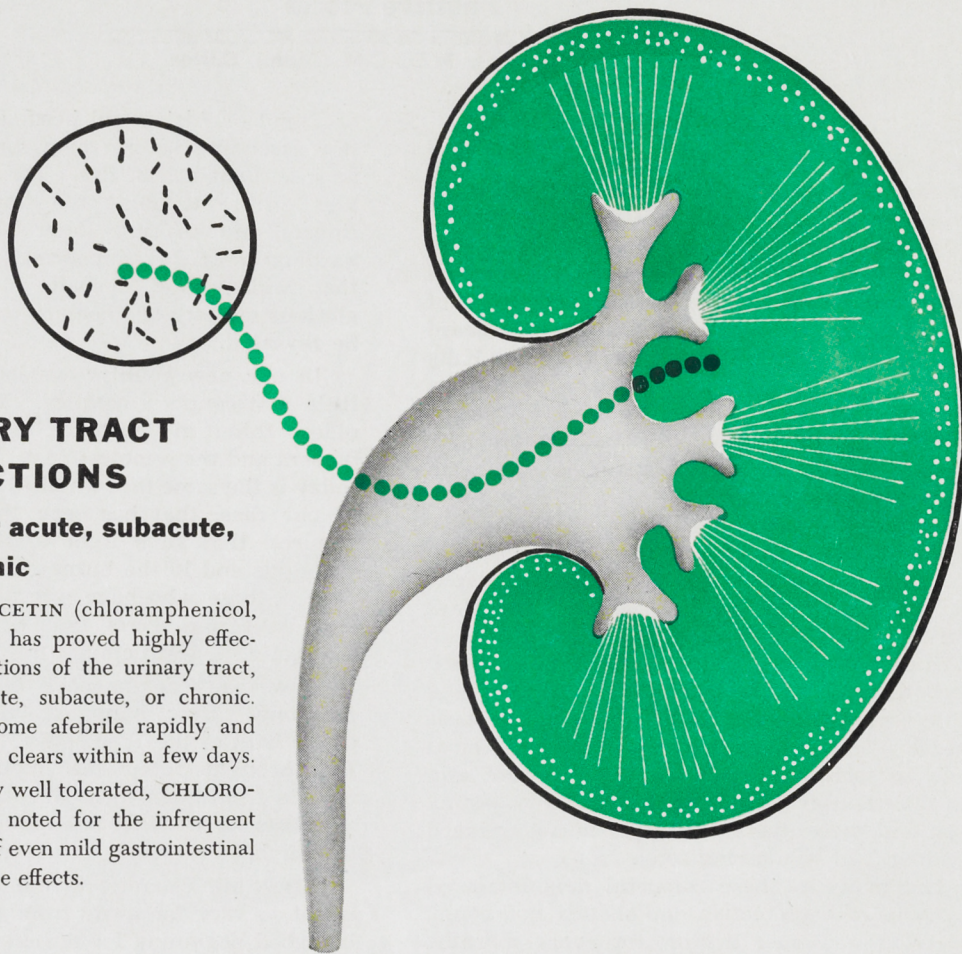
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Article

Mumblings in Medicine

Prof. R. A. Wardle

In the course of my lucubrations at the drug store book racks, I have been struck by the fact that you can scarcely pick up a book nowadays without finding a doctor in it.

It would almost seem that when a young author nowadays submits a book to a publisher and then goes to see him about it, the dignified head of the firm settles back in his arm chair and peers at the young man through his pince nez—thus recalling the negro lady's description of "de venereal gennelman wid de goldrimmed testicles"—and says: "Well, young man, we think very highly of your book; it has originality, humour, grip and style; in fact we think it is the cat's pyjamas; but it has one serious defect, Mr. Shufflebottom, one very serious defect; there is no doctor in it."

And the young man will say indignantly—"Well, for goodness sake, Messrs. Doubleday, Febiger, Methuen, Howe and Howe—the characters in my book are pictures of rude and rugged health. All they suffer from are slight accidents such as being bludgeoned to death, or being drowned in underground vaults, or falling through holes in platforms with ropes attached to their necks, but they certainly don't need any doctor."

"But," the publishing fellow will say, "that's all very well, Mr. Shufflebottom, but our firm has a reputation to maintain. The first thing our readers will want to know before they cough up three smackers fifty for this book, is—is there a doctor in the house? In any case we cannot risk any of the characters in our books being cut off from medical aid. Why, suppose the heroine got the whooping cough or the hives and there was no doctor handy to put her right, whatever would our reading public think? No sir. No pills, no publication!"

So the young man goes sadly away and inserts a doctor into his book.

So you find books today simply infested with doctors. They may be there in a minor professional capacity, giving an opinion as to the time of day the victim collided with a blunt instrument. Or they may be living normal professional lives, harassed and baffled, like all doctors, by obstreperous patients, unpaid bills and jealous rivals. But most of the doctors you meet in books are inclined to neglect the healing art and spend their time either solving crimes or frustrating them.

These crime solvers are of three kinds. First of all are the armchair sleuths—Dr. Gideon Fell,

Dr. John Sanders, Professor Priestley, and the like. They spend their lives in padded armchairs sitting and thinking, or merely sitting. They are visited by the leading police chiefs and detective inspectors of the day, for by closing their eyes and putting their finger tips together these birds can provide in a few words solutions of crimes that have baffled the police of two continents.

Usually the victim, Sir or Madam as the case may be, has been found horribly murdered under circumstances that suggest that not even a fly could have got near enough to do the fell deed. In the simplest form of such crimes the corpus delicti lies with weazand severed, or with a cloth-yard arrow through the heart, in a room whose doors and windows are locked and whose keyholes and crevices are stuffed with paper. Or the remains lie horribly bleeding on a rock in the middle of miles of undisturbed sand.

Of course such jiggery pokery throws the police into a flat spin, and the gentlemanly superintendent, who is really a Varsity Man, beetles off to consult his old professor. This old bore is apt to be a little coy at first and the admiring pupil has to reel off a list of the professor's former successes, which happen by a curious coincidence to be the titles of the author's previous books.

"Now, Sir, that won't do. Remember the "Spotted Dog Case?" Remember how you solved "The Mystery of the One-eyed Trull?" Remember when you solved "The Murder in the Refrigerator?" "It's no use, superintendent, I tell you—I leave for Monte Carlo tomorrow." "But you can't do that, Professor, you can't leave us out on a limb. Remember the time you found "Who Killed Auntie"—remember when you solved the "Body in the Backhouse?"—and so on and so forth until the reader is slightly bilious.

Finally the old trout closes his eyes, puts his finger tips together, and tells the policeman that the victim was really killed by swallowing a slug from a horse pistol, that was used on the Afghanistan frontier in 1894 and that the killer is a short, stocky man with six fingers on one hand and a slight elephantiasis of the right foot. Personally I regard these sleuthing professors as pure poison.

Secondly there are the medico-legal sharks. The go getters; who rush frenziedly hither and thither like scalded hens from one crime to another. Usually they are accompanied by small laboratories packed in club bags—by two or three admiring yes men—and by an assortment of envelopes in which to place hairs and cigar ends. These fellows are great on cigar-ends and woe

betide the criminal who has left the end of a stogie at the scene of the crime. He is as good as done for.

The leading exponent of this branch of medicine has been the late Austen Freeman's Dr. John Thorndyke, a veritable wizard at bringing to book those pests who conceal the bodies in grandfather clocks, or throw them out of trains, or bury them in antique coffins with modern screws instead of coffin nails. But I imagine most of his work is now being taken over by Miss Josephine Bell's Dr. Wintringham. I don't like Dr. Wintringham because he never seems to have anything handy in which to deposit cigar-ends and has to make shift with match boxes and old bottles.

Thirdly there is a class of doctors in literature who serve as enthusiastic yes men to the arm-chair sleuths and the go getters: men like the notorious Dr. Watson who served as chief factotum to the great Sherlock Holmes. These men have a few patients whom they go to visit occasionally, but they are always willing to leave them to die of neglect if the Great Man calls. The chief job of these thickheaded chumps is to make admiring noises and to ask those dumb questions so necessary to bring out the scintillating brilliance of the boss sleuth. Occasionally no doubt they are permitted to carry the club bag or hold one end of the measuring tape.

Very commonly, however, the doctor in a book is no ornament to the medical profession. For I say, with sobs choking my voice, that an author wanting to introduce an exceptionally loathsome scoundrel into his book will bring in some medical villain who doesn't know morphine from mag. sulph. and doesn't care; his main preoccupation being to find some wealthy old lady to make a will in his favor before the strychnine goes into her health salts.

This man is usually carrying out mysterious researches which involve the strapping down and cutting up of anything he can get his hands on—guinea pigs, dogs, mothers-in-law, and so on. He is assisted by a hard faced nurse, a tough baby who is an ex-gun-moll turned blackmailer.

If this villain is a city doctor he will wear a tailed coat and striped pants and will conceal his foul designs behind a bushy black beard and a Corona. The bristles on his jowls will stand out blue-black against his tallowy chops. If he is a country doctor he will be a horsey individual in riding breeches and fur collared coat, his pimply, drink sodden face bearing the unmistakable signs of the beast.

The medical equipment of these sharks is surprisingly simple—just an old fashioned wooden straight-stemmed stethoscope with a notch for each victim—, the indispensable hypodermic syringe loaded with some poison unknown to science—, a powerful riding whip with which to

collect accounts—, and a blackjack to induce second stage anaesthesia. He will undoubtedly have had a mis-spent youth in some tropical country where he picked up a taste for mayhem and a knowledge of those mysterious arrow-poisons and rare snake-venoms which he puts to such foul use.

Take for example, that vicious scoundrel, Dr. Grimesby Roylatt, whose unholy activities were investigated by Mr. Sherlock Holmes in "The Case of the Speckled Band." He was an oversexed blackguard in a long frockcoat and plug hat, a pair of hunting gaiters, and a hunting crop swinging from his hand. His large face was seamed by every evil passion and his deep bile-shot eyes and thin fleshless nose made him look like one of the less picturesque species of vulture. He could take up a poker and bend it like a pretzel. Definitely not the sort of doctor to call in for certain types of genito-urinary affliction. Not that he would have bothered to attend you for he was too busy consorting with gipsies or throwing blacksmiths over bridge parapets or introducing the most venomous snakes of India into his stepdaughter's bedroom.

Personally I always think it unwise to employ the services of any doctor who has a passion for introducing swamp adders into bedrooms. Once a doctor gets a taste for this sort of thing he will rarely give serious attention to his professional duties and I imagine he gets a bit washed up and out-of-date.

It is painful, when glancing over the literature of crime, to note how commonly the heads of large medical institutions descend to malpractice. Take for example Mr. Walbridge Cully's report on DOCTORS BEWARE that Messrs. Doubleday, Doran and Co. have so generously issued to the public. The villain was Dr. Parrott of all people. That six foot, athletic, blond man whose crooked nose piqued the imagination. At the time he was head of the Women's Division of the Fairhaven Hospital for Mental Diseases with a pretty good chance of becoming head of the place. But the exasperating fellow simply could not keep his hands off his colleagues. He strangled that suave philanderer, Dr. Verandene, with his own hands while the doctor was psychoanalysing the charming nightclub singer; and he laid violent hands upon the neck of the rough drunken hospital-attendant in his underground cubbyhole; and then if he didn't go and do likewise to Dr. Benton, that pokerfaced young man who masked his youth and uneasiness behind a large pipe and a small moustache with waxed ends! No wonder that when the police shot Dr. Parrott they did not feel that they were depriving the hospital of an indispensable executive.

Then again, Dr. James Edwards, who happens to be a real doctor and should know his medical onions, has described for us in DEATH AMONG

THE DOCTORS—he should have called it Massacre among the Doctors—the case of Rodney Peebles, the head of Monmouth Memorial Hospital. A shy ascetic man. A young man with the world at his feet. Yet this unethical son of a—son of honorable parents—foully butchered three members of his staff because he loved the dear old hospital and wanted to do something for it; wanted to make room on the hospital staff for the more professional types of physician. Tut, tut, Dr. Peebles, a feeble excuse surely.

Dr. Martin Jones (WHY SLUG A POSTMAN—Mr. Seldon Truss) was assistant pathologist in Pimlico Hospital. So passionately enamoured with research was Dr. Jones that in order to obtain funds he took an unpaid job as resident doctor in a private hotel, all the better to chisel, twist, disembarass or, otherwise disencumber, an old lady out of thirty thousand pounds before sending her over the Great Divide with an overdose of quinine. The suspicious proprietress of the hotel was removed by the insertion of potassium cyanide in her bubble-bath salts. Her daughter he got rid of by simple immersion in water. He was just leading a fourth lady towards an open fifth storey window with the intention of having her fall for him, when the police broke in—suspicious no doubt of any pathologist who could afford to drink beer—and permitted the ardent scientist to make the jump himself. Which he did, snarling: "Women, they make me sick, dogging my footsteps and stifling my work; work that means so much to me that I'd let nothing stand in the way of it; nothing."

Still, one cannot help feeling that in the long run it would have been simpler for Dr. Jones to apply to the Medical Research Council for a grant-in-aid.

You will note with relief that these disciples of Esculapius rarely get away with more than three murders. Three would seem to be about par for the course. After the third one they lose their grip and the brilliant amateur criminologist bursts out from the linen cupboard and nabs them. No doubt the routine of a large hospital leaves the executive staff little time for the higher branches of crime.

But Dr. Arthur Creighton did not even make the minimum grade. He was, according to Miss Theodora Du Bois in her report on THE WILD DUCK MURDERS, in charge of the medical side of Roger Williams College and having apparently too much time on his hands he went political and joined the Liberate America party. (Liberate what from? I really do not know). So did his night watchman, Mr. Williams. Such activities in a university naturally attract snoopers. Dr. Creighton got rid of the first one with a cleverly timed ju jitsu blow and Mr. Williams dealt with the others in the usual way by bomb and bullet. But just as Dr. Creighton was getting into his stride

so to speak, he foolishly fell a victim to a duck-patty well soaked with botulism germs that his patriotic sister had imported from Saskatchewan.

Now I would not have you think that a doctor cannot show his face in a story book without making a brute of himself, not to speak of shattering the oath of Hippocrates. Actually some of the noblest characters of fiction have been doctors who didn't think the day badly spent if they hadn't bumped somebody off.

Take for example that young doctor, Barney Boyle, in Mr. Ralph Connor's story "The Doctor." Good old Barney, that rugged young man with the swarthy face and deep set eyes and the suggestion of strength in every line of his body.

I like to recall the little stag dinner given by the hospital staff to celebrate Barney's getting his degree, when that sinister character, Dr. Bulling, inflamed by coarse talk and the vinous products of the Niagara Peninsula, spoke lightly of a woman's name. And Barney said "Yes! You would all laugh at this brute ruining the name and honor of a lonely girl." And then Barney, maddened by chivalry, broke off the leg of a small oak dressing table—although what this was doing in the dining-room I really do not know—and chased the doctor round the room and then gripped his throat and shook the gasping wretch as a dog would shake a rat, until Dr. Bulling broke down and admitted that he had been a beastly cad.

I must confess, after reading of such noble behaviour, that I was disagreeably surprised to find Barney in Chapter 16 whooping it up under an assumed name in Frank's saloon on the Crow's Nest Pass, playing that vile game black-jack for nine hours at a stretch, nipping some vile poison from a pinchbottle, and grossly neglecting his patients.

However, there was nothing for me to worry about for Barney's missionary brother was on his way; for in those days Toronto used to send missionaries to Alberta. Nowadays of course—but why bring that up. Anyway, Barney was jerked back to the straight and narrow path and his black-jack earnings devoted to founding camp libraries and when eventually he was carried off by an inflammation of the innards, he was taken to the old village church two thousand miles away.

Wiping the tears from my face let me turn to that noble sawbones, Dr. Kildare, the hero of a number of stories and films by the late Max Brand, and as fine a young medico as ever whipped out a gall bladder. But even Dr. Kildare had his ups and downs. There was notably that time when he saw a young lady shrieking with agony on a public street. She had been felled by a flivver. With what has always seemed to me a slight excess of professional zeal, the young doctor rushed up to her, quietened her howls by a blow to the face, tore off her clothes and slashed her

open like a watermelon amidst the shouts of the blood-maddened spectators. I never thought he would get away with it that time, but where is the judge who could withstand the impassioned eloquence of old silver-haired Dr. Gillespie who proved that the young doctor was really doing the lady a favour.

Then again there is Spencer Brade, M.D., so beautifully depicted by Mr. Frank Slaughter, although I hardly think that Frank has a suitable name for a writer of medical fiction.

What I like about Mr. Slaughter's books is the medical atmosphere. You get lots of cosy talk about stomachs being lifted from nests of warm gauze packs; about perfectly swell pulmonary embolisms; streptococci in long purple chains; broad guillotine blades shearing through the ribs; and that sort of thing. The books are emphatically a must for any friend of yours in hospital to whom you wish to send some cheery reading matter.

Then there is Mrs. Elizabeth Seifert who has done so much to make the doctor respectable in literature and who writes feelingly about young

and budding practitioners and their troubles and frustrations and brainstorm when they lose their wives' affections and become dipsomaniacs.

There are, of course, too, those delightful books in which the fair-haired young doctor crawls under bomb-stricken buildings with an amputation knife in his mouth and finds evidence that his wealthiest patients have been doing things they shouldn't have been doing.

And of course when a story writer cannot think of a new plot he can always fall back upon that well worn situation of the young doctor disliked and unpopular because of his cruelty to guinea pigs, who insists on going down the coal mine although his old housekeeper pleads with him—"Don't go down the mine, doctor, there's plenty of coal in the bin"—and the coal mine explodes and there, amidst the choke damp and the fire damp and the plain ordinary damp, he does marvellous work and when he comes up the sobbing women gather round him and say, as I am inclined to say to all these doctors in books, God bless you doctor, you can do what the hell you like with your guinea pigs.

Book Reviews

Look in Your Mirror is a series of twelve essays on as many aspects of life as a doctor sees it. "We look in a mirror while dressing" says the author, "to make the most of what we have, and to avoid as many faults as possible in our appearance. This, too, is the purpose of a book on behaviour." The subtitle of the book is "A study in human behaviour."

The book is written for lay people. It is written in a chatty, conversational style. The author's photograph shows him to be a cheery, elderly person of the sort that invites confidence. He addresses himself to no particular age, the young can profit from him as well as the elderly.

The essays—or chapters—are headed: Companionship, Observations on Emotions; In Quest of Quality; The Learning Mind; Goals; Observations on Criticism; My Friends, the Parsons; On Time and Age; The Modern Doctor MacLure; Observations on Uplifters and Uplifting; The Neurotic Personality; Artistry in Daily Life.

Although written by a doctor its theme is neither health or sickness in the restricted physical sense. The author deals rather with the environment and circumstances of living, with the external sociological and political and geographical influences that play upon people as they grow up and after they have reached maturity. The soil is no less important than the seed. There is throughout the book a good deal of pertinent observation and home-spun philosophy. It is not a great book

but it is an interesting one.

Look in Your Mirror, a story in Human Behaviour: by John Potts, M.D., D.C.L. Burns & MacEachern, Toronto. Price \$3.00.

Clinical Electrocardiography in Children is a hundred and eighteen page book which confines itself to consideration of normal and abnormal cardiograms in children. It should prove very convenient and useful to pediatricians especially and also to general practitioners.

The first chapter deals with the Deflections and Intervals of the Electrocardiogram of the Child; the second with Heart Position; the third and fourth with Bipolar and Unipolar Limb Leads and Unipolar Precordial Leads. A chapter is given to the Child's Electrocardiogram in Disease, and another to the Electrocardiogram in Congenital Heart Lesions. Disturbances of Rate and Rhythm are discussed, and there are Tables of Normals for boys and for girls at different ages. The bibliography occupies several pages and there is a good index. There is an abundance of illustrative tracings.

Clinical Electrocardiography in Children, by Gertrude A. B. Nicolson, M.D., Associated in Cardiology, Chief of Children's Cardiac Clinic and Assistant Visiting Physician to the Children's Service at St. Luke's Hospital; Instructor in Pediatrics at Columbia University; Consultant Cardiologist to Infants at Women's Hospital; Electrocardiographer of Bellevue Hospital from 1930 to 1951.

The Macmillan Company of Canada, Toronto. Price \$3.25.

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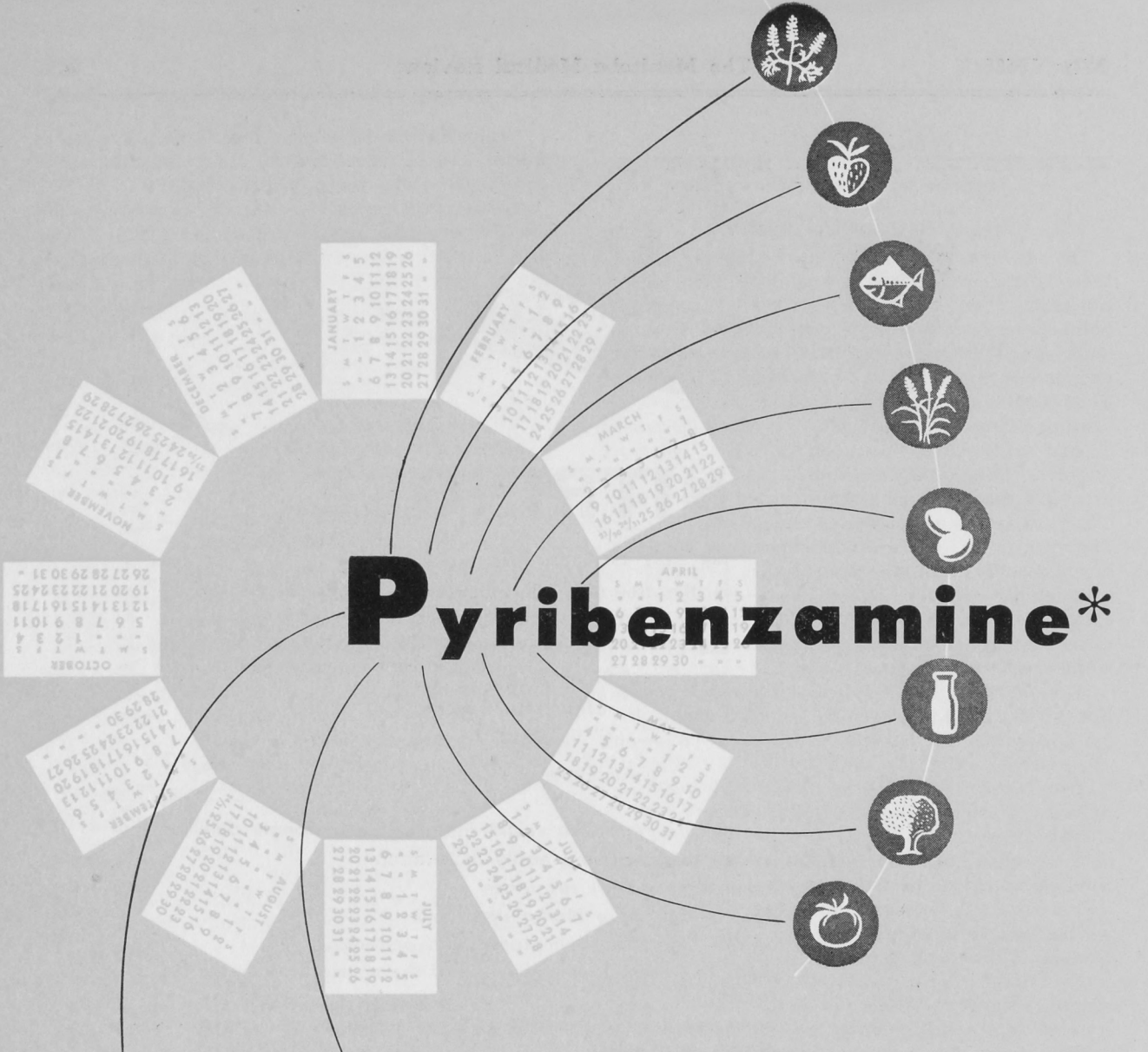
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Editorial

J. C. Hossack, M.D., C.M. (Man.), Editor

The Cost of a Convention

To urge you to attend the coming meeting of the National Association is a work of supererogation. All will want to be present. Nor is there much point in reminding you of your duty as hosts to our visitors. Western hospitality is nowhere better exemplified than here at the Gateway of the West. Your duties, then, to your visiting speakers and visiting listeners are certain to be performed.

But will you bestir yourselves in a more local matter? There will be no local convention this year and therefore no papers for our publication. The Winnipeg Medical Society has given us little. The various sections and departments of hospitals have given us nothing. "Of making many books," complained Solomon, "there is no end." But, complain I; Of a few papers for the Review there is no beginning, or if any are begun they expire while barely conceived.

I do not thus like to bare my wounds in public. Not that their exposure will fail to elicit sympathy; but sympathy will soothe me little unless it is expressed in action.

I wish that it were in my power to amend the by-laws of College and Hospitals. Then I would enact that every member of the Faculty could hold his appointment only if he or she had contributed an article or paper to the Review. And I would make it mandatory that every intern during his tenure of a service should prepare a well worked up history on a patient under his care.

Everyone (including internes) does much reading, and reading maketh a full man. And everyone is aware of the value of conference because much time is spent conferring or listening to the conferences of others; and conference maketh a ready man. But few sufficiently realize that writing alone maketh an exact man. Only when one's thoughts are before him in black and white—only then can anyone tell how clear are his thoughts or how exact is his knowledge.

But I have no authority to make such laws. I can only ask you to prepare material. Everyone has something to tell the rest of us. Even those who have nothing to write about could give us papers entitled "Why I Have Nothing to Write About."

During the coming year we are going to need papers badly. Therefore we want contributions. If they are good they will be published.

A fact which I have mentioned before, but which may at times be forgotten, is that the Review is the show window of the Association, the College, the local hospitals, the profession of the province. Wherever it goes—and it travels far—it is our advertisement. We are not backward

in defending our Province or our practice and we should not be backward in doing all that each one can, to assure a favourable opinion.

There are, I am sorry to say, many members of our Faculty who have yet to submit their first article. Of the many hundreds of thousands of useful words that have been uttered in various gatherings during the past months surely a few might be set in writing for the benefit of our readers.

We are glad that Winnipeg is the place of convention this year even though it will cost us material. But many of you who read this can meet that cost and together you can, if you wish, turn a loss into a profit.

Medical Casualties

The Social Editor

For only too long we have been deprived of the bright contributions of Dr. Borthwick-Leslie. That the deprivation is a real one I am being reminded daily. It is almost, one would think, as if the Black Prince's ruby had dropped from the Crown Imperial.

Dr. Borthwick-Leslie had the misfortune to break an arm. By a greater misfortune the arm broken was the right one. It is mending and will soon, I trust, be employed in the penning of the bright little items which make many seek her page first.

I should have told you this before but when a dead-line has been missed another month must pass before anything can get into print. I'm quite ashamed of myself. No one has done more to help me than has genial Kay. *Mea culpa! Mea maxima culpa!!*

We'll all be glad to have her back again. Perhaps she will be before you see this. I hope so.

Frank Stuart

While on the subject of medical casualties let me tell you of what befell Frank Stuart. He suffered a coronary attack and had to be put in hospital. Now it happened that the waiting list was a mile long and only one patient could be displaced. This was on the obstetrical ward.

He was admitted in the evening and next morning the nurse on duty, not knowing that her patient had been moved, trotted in and presented Frank with a baby to nurse! Frank is one of those "so round, so firm, so fully packed" chaps who is occasionally teased about his girth and asked questions about physiological processes of which he is incapable. It was therefore amusing to find him listed with mothers—a situation which put him in a class with Zeus who was, to the best of my knowledge, the only male who of himself had offspring.

The fact that he was comfortable and doing well rid his friends of anxiety and gave scope to their humour.

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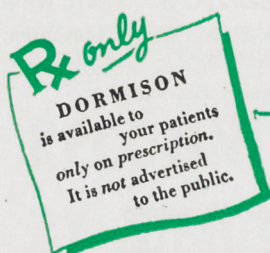
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Some Aspects of National Health Insurance

Gordon E. Wride, M.D., D.P.H.*

Assistant Director of Health Insurance Studies,
Department of National Health and Welfare,
Ottawa, Ont.

May I express my great pleasure at this opportunity to address the General Practice Sections of both the Manitoba Medical Association and the Winnipeg Medical Society. One cannot help but feel that because of your large majority in the medical profession and your close association with the individual family and its health problems one is addressing representatives of those who are, in the last analysis, truly responsible for the health care of the people of Manitoba.

At the time of Confederation, by inference at least, the Canadian Provinces retained the majority of the rights and responsibilities pertaining to health matters. Pressed into activity by the occurrence of the great epidemics of those days local communities developed local boards of health, which, in turn, were eventually co-ordinated by the growth of strong Provincial Departments of Health. A desirable uniformity has been the result.

As government activities at all levels and in all fields expanded, statutory subsidies became inadequate as a means of ensuring the smooth-functioning of the mechanism of government. Shortly before World War I, actually in 1911, the Federal Government, on the basis of British and American experience with grants-in-aid, established the first conditional grants-in-aid for agricultural developments within the Provinces. It seemed only logical that the newly-created Federal Department of Health should, in turn, use a grant-in-aid to assist the Provinces in the control of venereal diseases in 1919. It should be added that the success of this grant and the smooth-functioning of its administration indicated that such grants-in-aid could be made a powerful force in the improvement of health.

By 1938, we find the Dominion Council of Health, consisting of the Deputy Ministers of Health from all Provinces and certain lay representatives, unanimously endorsing the principle that the most expedient method of combating tuberculosis was by way of Federal grants-in-aid and, also, holding discussions on the matters of professional training and cancer control. Later, the Rowell-Sirois Commission firmly endorsed the principle of grants-in-aid for health services. A

subsequent conference on post-war public health and medical services in discussing the findings of this Commission and other Departmental studies felt that:

(1)—Preventive services in the form of a general public health scheme should be integrated with any programme of personal medical care;

(2)—Federal financial assistance to Provincial and local public health services would be a decisive factor in promoting a public health programme;

(3)—The special services for the control of tuberculosis and venereal disease, and the promotion of mental health, should be subsidized by special grants with provision for the training of personnel for health research.

In March, 1943, a report on Health Insurance and Public Health, commonly referred to as the Heagerty Report, recommended that Federal financial assistance be provided to the Provinces. To reduce the toll of illness and death and to integrate public health and medical care, Grants were recommended for tuberculosis, mental disease, general public health, venereal disease, professional training, "investigation," and physical fitness.

Following the submission of the Canadian Council for Crippled Children, the Department also suggested the establishment of a Grant for the care of crippled children.

In early 1945, preparations for the Dominion-Provincial Conference on Reconstruction were well under way. One committee collected information on health insurance and public health, culminating in the establishment of an inter-departmental working committee on Health Insurance. Finally, at a Dominion-Provincial Conference, in August, 1945, the Federal Government made proposals to the Province involving:

- (1) a grant for planning and organization;
- (2) assistance with health insurance;
- (3) a health grant, and, finally,
- (4) financial assistance towards the construction of hospitals through low-interest loans.

Although agreement was not obtained with all Provinces on these proposals the Prime Minister, on May 14th, 1948, formally introduced a National Programme by presenting the details of certain grants-in-aid, which adhered very closely to the forms and titles set forth over several years of discussion, namely a Cancer Control Grant, a Tuberculosis Control Grant, a Venereal Disease Control Grant, a Mental Health Grant, etc., and were intended to assist in the development of new and extended programmes in the health field.

*Delivered at a Joint General Practice Section of the Manitoba Medical Association and Winnipeg Medical Society, Winnipeg, March 20th, 1953.

In another eleven days the Directorate, of which Doctor Jackson is the head, will have had five years' experience in the administration of Federal grants-in-aid to the Canadian Provinces, involving a sum of over \$165 million. I should like to impress this amount upon you. When visitors from neighbouring and far-distant countries come to our offices, they usually express appreciation that Canada, at the Federal level, provides an average per capita assistance through the National Health Grants Programme of approximately two and a half dollars.

Actually one is dealing with potential expenditures, since no Province has been able during the first five years to spend the total sums available to it. Great as the need has been for fresh action in the field of health there has been a certain static inertia to overcome. Suddenly, extended horizons, the need for careful surveys of existing facilities, planning, and, above all, the rapidly developing shortage of personnel and facilities have made it impossible to wisely employ at once all the funds allocated. The experience has, therefore, been one of snowballing, of programming and of expenditures.

In the first year \$446,000 was claimed by Manitoba out of a possible \$1,806,300, the next year \$749,400, and the third year \$1,060,300. It now appears that during the first five years the Province will have undertaken activities for health which have merited Federal assistance totalling \$5,177,200. Unhappily, only the Hospital Construction and the Survey Grants have been accumulative with unspent commitments available in following years, while in other Grants the monies unclaimed have reverted to the Treasury.

Now what has been the effect of such expenditures and effort during the past five years? It is not difficult to outline what the people of Manitoba have received in terms of improved health facilities, through listing monies spent, personnel trained, equipment provided and programmes undertaken. However, it is much more difficult to analyze the situation in terms of lessening of disease, buoyant health and increased economic productivity. The necessary record-keeping at all levels would be tremendous and it is doubtful if definite trends could be proven without the passage of a much greater time than the five years. Physicians know that in the health fields it may take many years for the accumulative effect of any new procedure to become established in statistical evaluations.

With an expenditure of \$29,052 under the Survey Grant, Manitoba completed a basic survey in health facilities and outlined certain planning in the health field. Along with the reports of the other Provinces, it has been tabled in the House of Commons.

In studying the effect of \$549,991 expended in Manitoba as the Federal contribution to assist in the control of tuberculosis, one must note that the Province receives annually a flat grant of \$25,000 and the remainder is given 50% on the basis of population and 50% on the basis of deaths averaged over the previous five years. As an illustration of the inter-dependence of the individual Health Grants, one can now indicate that the Tuberculosis Control Programme has also benefited through the Professional Training Grant, the Crippled Children Grant, the General Public Health Grant and the Hospital Construction Grant.

The large measure of success already evident in Canada's fight against tuberculosis reflects a great credit on provincial and voluntary health administration.

During a period of admittedly poor reporting in Canada it is given that in 1930 the crude mortality rate for tuberculosis in Manitoba was 66.2 per hundred thousand population, and by 1952 it had declined to 15.8 deaths per hundred thousand, with a total of deaths. There is, you know, a rough calculation that there should be at least three sanatorium beds provided for each death from tuberculosis during the year. In the face of greatly stepped up case-finding programmes and early admissions to sanatoria a survey will usually indicate that all beds are necessary and in demand. From time to time, one hears the suggestion that, as tuberculosis comes more under control, selected sanatoria may be rehabilitated for the care of mental cases.

In 1952 there were reported 918 cases of pulmonary tuberculosis in Manitoba or a rate of 115 per hundred thousand population. There may be re-reporting of the same case, and, also, there are always many undetected cases in the general population. As a result of deficiencies in reporting, it has been difficult to show that the incidence of tuberculosis is falling off in all localities. There is supporting evidence in the fewer numbers turned up by mass surveys and the knowledge that practising physicians today do not see as much tuberculosis as in years gone past. There is, however, evidence that tuberculosis is disappearing relatively as a disease of childhood and is increasing relatively as a disease of our senior citizens.

Incidentally, the placing of admission chest X-ray equipment in almost all hospitals with the assistance of the Tuberculosis Control Grant has proved to be of the utmost benefit. 2 to 3% of the regular admissions to general hospitals have been reported in most Provinces as showing signs warranting further investigation for pulmonary tuberculosis. The additional benefit of finding other chest conditions and the protection of nursing and other staff must be significant. Depending upon the organization and interest within each hospital 50 to 90% of all admissions can be X-rayed with this equipment.

In contrast to the cheapness and efficiency of admission chest X-ray procedures one hears questioning of the efficacy of mass surveys. The cost of such surveys appears to be mounting out of proportion to the new cases found and it may be that the future of the travelling survey will be as a sampling operation at relatively infrequent intervals and as part of an epidemiological follow-up upon finding a new focus of infection.

Supplies of streptomycin and paramino-salicylic acid have been provided in this Province through an expenditure under the Grants of over \$79,176 for the treatment of patients in sanatoria. The recently heralded isoniazide is reported to be powerful in its effect for the first three to six weeks of administration and then must be supplemented by streptomycin or a dangerous relapse may occur.

The use of BCG has spread to all tuberculosis programmes in Canada. Some Provinces are retaining its use for the personnel exposed to active association with tuberculosis in sanatoria and general hospitals. Others are increasingly spreading its use to the coverage of children in institutions and in local community areas where there may be a high incidence of tuberculosis. The controversy continues as to whether the moist form of BCG or the dried form is more suitable although the moist form appears to have the most support. An adequate supply for present needs is being supported through the Grants to the Institute of Microbiology under Doctor Frappier in Montreal.

It is less easy to find statistical support of the benefit of a heavy allocation for mental health in the Nation-wide Health Programme. Having regard to the increasing burden of mental illness in all Provinces, and the information that fifty-four mental institutions in Canada are being operated at a cost in excess of \$40,000,000 it would seem mandatory that a comprehensive mental health programme be undertaken to extend the benefits of Mental Health Units to all parts of a Province. Such a Unit basically provides the services of a psychiatrist, a psychologist and a psychiatric social worker for a group of approximately 100,000 people. Seventy-seven units of this type are in operation across Canada at the present time.

It will come as a pleasant surprise to many of you to know that in keeping with modern requirements for adequate research the Mental Health Grant is distinguished in the present fiscal year through the support alone of \$400,000 of mental health research in Canada. A subject of intense interest is the evaluation of biochemical causes for mental diseases, especially schizophrenia. Promising leads are being followed in both Eastern and Western Centres.

Much of the Mental Health Grant assistance has been provided for improvements in service in existing mental institutions. There is a renewed interest in the development of psychiatric wings in larger general hospitals and, also, in the use of cottage units instead of large institutional buildings. Again, the shift in population to older age groups has resulted in a larger proportion of the inmates of mental institutions belonging to these groups.

Perhaps one of the grimmest yet most relentless health programmes in Canada today is the search for the control of cancer. The use of the word "control" looks forward to the day when the large amounts of money and the devoted skill of our workers in the laboratories and in the field will have conquered or at least begun to control a disease which annually accounts for over 16,000 deaths in Canada. There are those who infer that, except in the case of skin cancer, by the time a cancer is evident for diagnosis the whole body shares in the prospect, and the vast expenditures through many agencies has not changed the incidence nor outcome. Others suggest that, with improved diagnosis and accuracy of reporting, the rather constant level of mortality over the past few years does in fact indicate an improvement in the situation.

This Grant is typical of a shared expenditure in which the Province is required to at least match the contributions provided by the Federal Government. It can be expected that a Province sharing in a given expenditure will exercise every care in securing value for the money.

In general, the funds available under the Cancer Control Grant have been utilized in an attempt to extend the most modern diagnostic and treatment facilities to all who have cancer. In some Provinces this is realized by establishing a super-diagnostic and radiotherapy centre for 300,000 to 800,000 people. Other Provinces are tending to develop a concept that all larger hospitals should be key-centres and the majority of physicians should be well-trained in the treatment as well as in the detection of cancer.

The so-called Cobalt Bomb is glamorous, new, cancer-treatment equipment. Cobalt in small wafers or rods is placed in the atomic pile at Chalk River and withdrawn after eighteen months converted to Cobalt-60, which will give off rays equivalent to large amounts of radium for a half-life and effectiveness of five years. The Cobalt-60 is cautiously placed in the centre of a mass of lead to wall off the radiation with a shutter-opening prepared on one side through which the rays may be directed for a controllable period into a cancerous tumor. The total cost of purchase and installation at less than \$100,000 compares very favourably indeed with radium which, in equivalent strength, would cost hundreds of thousands

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Niacinamide.....	6 mg.
Pyridoxine HCl.....	1 mg.
Ascorbic acid.....	30 mg.
Vitamin B ₁₂	2.5 mcg.
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Sodium iodide.....	0.04 mg.

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MODES OF ISSUE:

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Vitamin D.....	1000 I.U.
Thiamine HCl.....	1 mg.
*Niacinamide.....	2.5 mg.
Ascorbic acid.....	30 mg.
Sodium iodide.....	0.04 mg.

*Not declared on label

DOSAGE:

Five drops daily.

MODES OF ISSUE:

Bottles of 8, 15 and 30 cc., with calibrated dropper.



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of dollars. Of course, the Cobalt-60 gradually turns to nickel and must be replaced at an approximate cost of \$5,000 every five years. It should be remembered that the rays are much the same as those of radium but the advantage lies in increased dosage permitted and in the reduced cost. It is already becoming evident that additional staff, well-trained in physics, will be needed across Canada to keep pace with the distribution of this new equipment. Impressive day-by-day calculations are required to meet the changing life of the Cobalt unit, to be expressed in terms of distance from the patient and length of exposure.

Cobalt radiotherapy equipment is presently in use in order of installation at Saskatoon, London, Vancouver and, I am pleased to say, a project has been approved under the Cancer Control Grant whereby the Province of Manitoba and the Federal Government share in the provision of the Cobalt Bomb equipment in your own Winnipeg General Hospital.

From the standpoint of the Federal desire to assist the Provinces only in new and extended service, the least satisfactory Grant has been that for Venereal Disease Control. The introduction of competent treatment through the use of the newer antibiotics has dramatically shortened the period of treatment, reduced the cost and increased the probability of cure. It has been difficult to show that the Provinces need to undertake many new and added services in the field and, in almost every case, there has been a tendency to spend less money but a great deal more effort.

I think it is fair to infer that the incidence of syphilis is declining in North America, certainly in Canada, and the future for controlling the disease is very bright indeed. Although gonorrhoea is adequately treated there is evidence that the incidence has not significantly declined. Instead, the shortness of treatment and the almost sure hope of cure has, in many cases, lessened the reporting by physicians with the attending evils of failure to follow up contacts, and a certain frustration for the Divisions of Venereal Disease Control and Vital Statistics.

When the Crippled Children Grant came into use it became evident that the problem of illness in children is so large that health departments hesitate to enter the field with the small amount of money apportioned to them. It was necessary to define crippling conditions as involving muscular systems only, and the Grant has been used to assist programmes to seek out, list, evaluate and, in some cases, to aid in correcting crippling conditions of this nature. The most emphasized areas have been those dealing with cerebral palsy and poliomyelitis, which, together, account for 80% of the crippling.

During 1952-53 assistance to the Manitoba poliomyelitis programme totalled \$28,485. More-

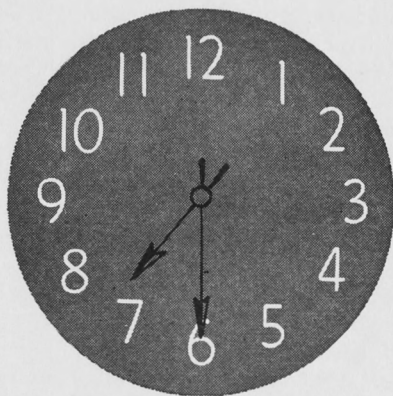
over, certain equipment which had previously been provided through the Grants to other provinces was placed on loan to Manitoba.

The realization of the larger problem of illness in children has led to the suggestion that additional assistance should be directed, in future years, into the whole problem of child health. It is difficult to continue to justify Canada's adverse position with an infant mortality rate standing thirteenth among comparable nations. Recently it has been shown that cohorts of children, who are kept from disease experience in childhood, proceed through life, and given a comparable environment, will have less disease experience, will live longer and will have a more productive life. It cannot be too strongly emphasized that the children of today are tomorrow's citizens, that the strength and well-being of any nation in war or in peace rests firmly on the health and economic productivity of its citizens, and that any nation which neglects the health of its children is overlooking a sound bet in lessening the burden of illness and its economic consequences—a more sensible approach than salvage programmes at a later age.

The Grant which has occupied the attention of the Canadian people more than any other has been the Hospital Construction Grant, with an allocation each year to Manitoba of over \$760,000.

It is thought that, with the assistance of this Grant, 2,658 beds have been added to the capacity of Manitoba hospitals. However, to give a true picture of the growth of hospitals under Health Grant stimulation, one would need to delve into all Grants. One must recognize that support has been given to the provision of admission chest X-rays under the Tuberculosis Control Grant, the development of mental health clinics under the Mental Health Grant, equipment and staff for diagnostic and treatment centres under the Cancer Control Grant, orthopaedic equipment under the Crippled Children Grant and a substantial amount of physiotherapy equipment for the Arthritis and Rheumatism programme under the General Public Health Grant. More and more, the hospital is taking its place as the community health centre or key-location in public health planning.

Costs of hospital construction have varied from \$5,000 to \$20,000 per bed with an average of approximately \$8,000. Complaints have been registered that the \$1,000 for an acute bed and \$1,500 for a chronic bed are insufficient. This situation has been relieved somewhat by the almost annual enlargement of the terms of the Hospital Construction Grant, with the result that assistance can now be considered in the amount of \$500 for each approved nurse's residence bed and \$1,000 for each 300 square feet of approved floor area in community health centres and out-patient departments, including laboratories and X-ray.



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Over 308 workers have received training or are in the midst of training for almost every health field in Manitoba. In making a submission under this Grant the Province is required to certify that it requires an individual with the added training to fill a position in a new and extended programme and has a place for him in the health organization of the Province. Minor difficulties have been encountered by all concerned. There is a certain post-war restlessness evident which has resulted in rapid turnovers in the health field as high as 30 to 50% annually in some cases. Although a contract is signed between the Province and the trainee certain difficulties have arisen.

The matter of assistance to research activities in the health fields across Canada has grown steadily. The Public Health Research Grant began in the amount of \$100,000 and has been annually extended until it now involves \$512,000. Efforts have been made to lessen the emphasis on bench and test-tube research and to encourage field and administrative studies.

A rough distribution at the present time of all research under the Health Grants would be as follows: \$200,000 under the General Public Health Grant; \$512,000 under the Public Health Research Grant; \$150,000 under the Tuberculosis Control Grant; \$400,000 under the Mental Health Grant, and \$2,000 under the Crippled Children Grant, providing a total assistance to research of well over 1¼ million dollars annually.

Lastly, we come to a short consideration of the catch-all Grant termed the General Public Health Grant. This Grant is provided to assist in extending and improving health services. Public Health nurses, sanitarians, public health veterinarians, dental services for children, the Arthritis and Rheumatism Society, laboratory services, the training of nurses, nurse-aides, technicians, and a far-reaching Canadian Sickness Survey, have all received assistance, either through training programmes, the employment of personnel, or the provision of adequate equipment. There are thirteen Health Units in the Province of Manitoba, all supported in part by Federal Grant funds amounting to \$114,934 in 1952-53.

It should be noted that this Grant has this year reached a total of \$393,625 for Manitoba and is now distributed on the basis of 50 cents per capita.

Have the Health Grants been worthwhile? Has disease been lessened, has the well-being of the individual and his productive capacity improved? Time alone can provide the statistically-supported truth. In the meantime, we must rely upon physical signs and symptoms, of which I have tried to outline a few. Health representatives, including physicians in practice, both orally and in writing, testify that the programme has provided

the stimulating support needed to realize those plans which, for years, had been only their dreams. It has been repeatedly stated that the Provincial budgets alone just could not support health undertakings of the magnitude now possible.

In conclusion I should like to register the personal hope that, where government made such expenditures for improved facilities in the field of health, the result will be that the all important practising physician will be in a much improved position to provide the scientific medicine which he has been trained to give and which his patients are increasingly coming to expect.

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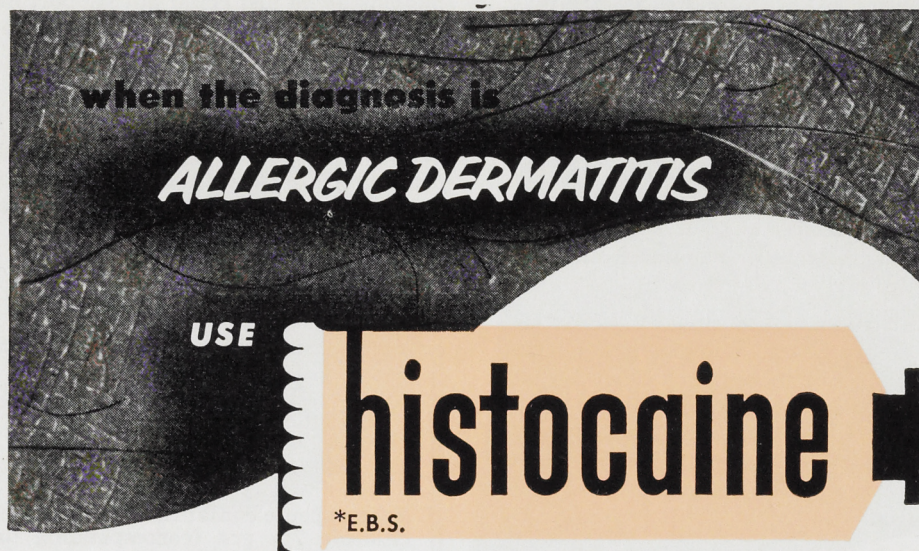
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- Your eyes are a part of your body; actually an external part of the brain.
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Department of Health and Public Welfare Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1952		1951		Total	
	Feb. 22 to Mar. 21, '53	Jan. 25 to Feb. 21, '53	Feb. 24 to Mar. 22, '52	Jan. 27 to Feb. 23, '52	Jan. 1 to Mar. 21, '53	Jan. 1 to Mar. 22, '52
Anterior Poliomyelitis	10	6	0	0	22	0
Chickenpox	114	150	127	115	440	380
Diphtheria	0	0	0	0	3	1
Diarrhoea and Enteritis, under 1 yr.	10	11	12	7	22	20
Diphtheria Carriers	0	0	0	0	0	0
Dysentery—Amoebic	0	0	0	0	0	0
Dysentery—Bacillary	1	2	4	1	3	5
Erysipelas	4	5	1	1	9	5
Encephalitis	0	0	0	0	0	0
Influenza	36	12	10	5	49	20
Measles	342	699	88	78	1580	312
Measles—German	6	7	2	3	18	5
Meningococcal Meningitis	6	1	4	0	11	4
Mumps	107	188	153	182	423	486
Ophthalmia Neonatorum	0	0	0	0	0	0
Puerperal Fever	0	0	1	0	0	1
Scarlet Fever	29	66	81	57	135	205
Septic Sore Throat	3	2	11	9	5	21
Smallpox	0	0	0	0	0	0
Tetanus	0	0	1	0	0	1
Trachoma	0	0	0	0	0	0
Tuberculosis	60	60	57	41	133	125
Typhoid Fever	0	0	0	0	0	0
Typhoid Paratyphoid	0	0	0	0	0	0
Typhoid Carriers	0	0	0	0	0	0
Undulant Fever	0	0	0	0	0	0
Whooping Cough	5	16	25	62	29	118
Gonorrhoea	72	84	92	88	266	273
Syphilis	11	2	8	10	20	26
Infectious Jaundice	40	22	4	4	74	10
Tularemia	1	0	0	0	1	0

Four-Week Period February 22nd to March 21st, 1953

*DEATHS FROM REPORTABLE DISEASES

For the Month of March, 1953

DISEASES (White Cases Only)	*798,000 Manitoba	*861,000 Saskatchewan	*3,825,000 Ontario	*2,952,000 Minnesota
Anterior Poliomyelitis	10	5	—	2
Chickenpox	114	141	2881	—
Diarrhoea and Enteritis, under 1 yr.	10	5	—	—
Diphtheria	—	—	—	—
Diphtheria Carriers	—	—	—	—
Dysentery—Amoebic	—	—	—	1
Dysentery—Bacillary	1	2	28	6
Encephalitis Epidemica	—	—	3	—
Erysipelas	4	1	8	—
Influenza	36	19	244	165
Infectious Jaundice	40	27	92	62
Measles	342	658	4050	760
German Measles	6	70	413	—
Meningitis Meningococcus	6	3	10	14
Mumps	107	162	2164	—
Ophthal. Neonat.	—	—	—	—
Puerperal Fever	—	—	—	—
Scarlet Fever	29	109	406	249
Septic Sore Throat	3	33	6	21
Smallpox	—	—	—	—
Tetanus	—	—	—	—
Trachoma	—	—	—	—
Tuberculosis	60	33	118	159
Tularaemia	1	—	1	—
Typhoid Fever	—	—	3	1
Typh. Para-Typhoid	—	—	1	—
Typhoid Carrier	—	—	—	—
Undulant Fever	—	—	2	—
Whooping Cough	5	10	79	3
Gonorrhoea	72	—	178	—
Syphilis	11	—	51	—

*Approximate population.

Urban—Cancer, 64; Influenza, 7; Measles, 1; Pneumonia, Lobar (490) 4; Pneumonia (other forms), 16; Pneumonia of newborn, 3; Poliomyelitis, 1; Syphilis, 3; Tuberculosis, 5; Septicaemia and Pyaemia, 1; Meningococcal Infection, 1; Infectious Hepatitis, 1. Other deaths under 1 year, 31. Other deaths over 1 year, 240. Stillbirths, 16. Total, 287.

Rural—Cancer, 28; Influenza, 3; Pneumonia, Lobar (490), 7; Pneumonia (other forms), 13; Pneumonia of newborn, 1; Tuberculosis, 5; Diarrhoea and Enteritis, 1. Other deaths under 1 year, 23. Other deaths over 1 year, 207. Stillbirths, 12. Total, 242.

Indians—Pneumonia, Lobar (490), 1; Pneumonia (other forms), 1; Tuberculosis, 1; Whooping Cough, 1. Other deaths under 1 year, 1. Other deaths over 1 year, 0. Stillbirths, 0. Total, 1.

Poliomyelitis with a total of 22 cases reported already this year, shows a hangover of infection throughout the winter which has not been experienced in Manitoba before (excepting in Eskimo).

Chickenpox, Measles and Mumps are still with us.

Rabies in Animals—You have no doubt been interested in radio and newspaper reports. The one proven case in Manitoba this year was a wolf at Sand Island about one hundred miles north of Nelson House. This animal attacked an Indian woman but fortunately did not bite her. Her husband, a trapper, shot the wolf while it was fighting with some dogs and sent the head in for examination. A diagnosis of rabies was proven by laboratory tests. Later two dogs were shot which the trapper thought to be rabid as they were frothing at the mouth. They were not examined by a veterinarian or by laboratory methods.

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and discomfort* *

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* CETOLAMIDE

Compound No. 1 *Compressed Tablet*

Each tablet contains:

Salicylamide	- - -	7½ grs.	(480 mg.)
Chlorothenylpyramine	- - -		
Citrate	- - -	¼ gr.	(15 mg.)
Ephedrine Sulphate	- - -	⅓ gr.	(8 mg.)
Atropine Sulphate	- - -	1/1000 gr.	(0.064 mg.)

INDICATIONS: Analgesic, for the symptomatic relief of infections of the upper respiratory tract including the common cold.

* CETOLAMIDE

Compound No. 2 *Compressed Tablet*

Each tablet contains:

Salicylamide	- - -	4 grs.	(260 mg.)
Phenacetin	- - -	2 grs.	(130 mg.)
Caffeine Alkaloid	- - -	¼ gr.	(15 mg.)
Codeine Phosphate	- - -	⅓ gr.	(8 mg.)

INDICATIONS: For the relief of headache and neuralgia with moderately severe pain.

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Plain *Compressed Tablet*

Salicylamide	- - -	7½ grs.	(480 mg.)
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INDICATIONS: Pain of acute and chronic arthritis including rheumatoid arthritis and rheumatic fever.

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E T H I C A L P H A R M A C E U T I C A L S

College of Physicians and Surgeons of Manitoba

Specialist Register

The following by-law was approved at the Annual Meeting of Council on October 13th, 1951:

WHEREAS the College of Physicians and Surgeons of Manitoba deem it desirable that a Register of Specialists be established and maintained by the College.

AND WHEREAS The Medical Act provides for the recording of higher degrees or additional qualifications of persons whose names appear on the Manitoba Medical Register.

NOW THEREFORE BE IT ENACTED and it is hereby enacted as follows:

1. That the Council do establish and maintain a Register to be kept by the Registrar to be known as the Specialists Register in which shall be entered the names of all persons who have complied with the provisions hereof.

2. Any person whose name appears in the Manitoba Medical Register and who is either:

- (a) A Fellow of the Royal College of Physician sand Surgeons of Canada; or
- (b) A certificated specialist of the Royal College of Physicians and Surgeons of Canada;

shall be entitled to have his name entered in the Specialists Register.

3. Any person whose name appears in the Manitoba Medical Register may at any time before January 1st, 1954, make application to be registered as a specialist and upon approval of his application by the special committee, apointed as hereinafter provided, may have his name entered in the Specialists Register.

4. The special committee hereinbefore referred to shall consist of six members as follows:

- (i) Two representatives of the College of Physicians and Surgeons of Manitoba appointed by the Council and of whom one shall be the chairman of the committee;
- (ii) Two representatives of and appointed by the Faculty of Medicine of the University of Manitoba; and
- (iii) Two representatives of and appointed by the Manitoba Medical Association.

The members of the committee shall hold office until and including the 31st day of December, 1953, on which day the said committee shall cease to function. It shall be the duty of the committee to pass upon the qualifications of any applicant for registration in the Specialists Register to accept or reject the application.

5. On and after the 1st day of January, 1954, either a fellowship of the Royal College of Physicians and Surgeons of Canada or an enrollment therein as a certificated specialist shall be accepted standard for registration as a specialist, provided, however, in special circumstances a person whose name appears in the Manitoba Medical Register and who is not a Fellow or certificated specialist of the Royal College of Physicians and Surgeons of Canada may apply to have his name entered in the Specialists Register. The Council, after inquiry into the circumstances of the case, may in its sole discretion accept or reject such application and if accepted direct that upon payment of the presribed fee the name of the applicant be entered in the Specialists Register.

Application form accompanied by supporting documents and the fee of Five Dollars (\$5.00) payable at par in Winnipeg, should be forwarded to Dr. M. T. Macfarland, Registrar, 604 Medical Arts Building, WINNIPEG, Manitoba.

Detailmen's Directory

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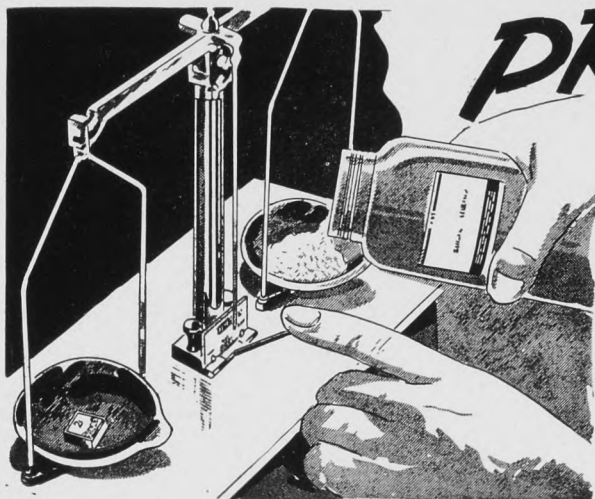
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